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## Together for Kids: First Year Report: A Project of Community Healthlink, Inc.

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*Community Healthlink*

*Et al.*

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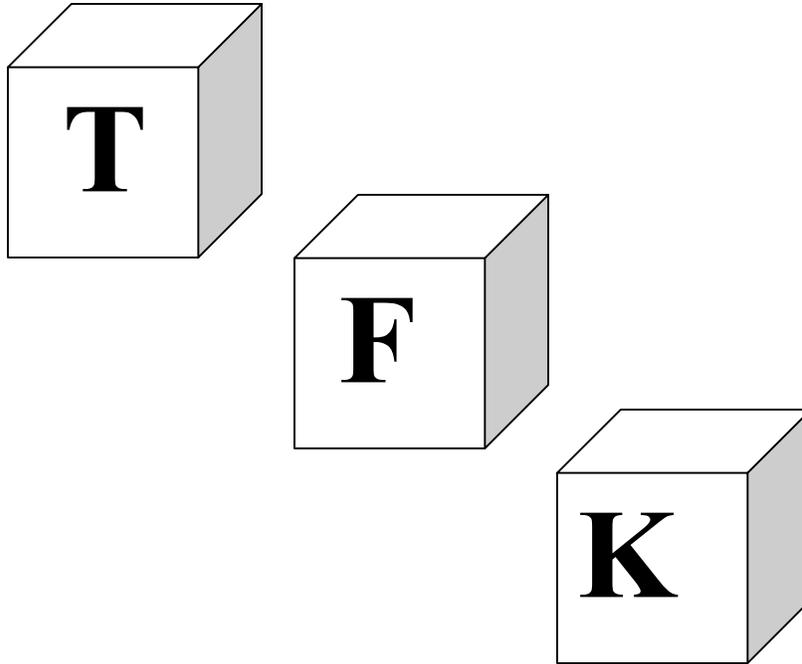
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**TOGETHER FOR KIDS**  
**First Year Report**

**A Project of Community Healthlink, Inc.**

**Funded by the Health Foundation of Central Massachusetts  
and the United Way of Central Massachusetts**

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**October, 2003**

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**Executive Summary  
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Funded by the Health Foundation of Central Massachusetts  
and the United Way of Central Massachusetts  
Carole Upshur and Melodie Wenz-Gross, Evaluation Consultants**

**October, 2003**

**Introduction**

The Together for Kids (TFK) project grew out of two years of work of over 30 childcare, health care, child welfare, and social service agencies concerned about early childhood mental health issues. These concerned constituents, like others across the country, were responding to an increase in the incidence of young children exhibiting challenging behaviors that were resulting in disrupted early childhood classrooms and children being expelled from programs (Grannon et al, 1999; Swanson, 2001).

The importance of addressing the needs of these children at an early stage has been emphasized by a broad array of mental health and childcare professionals. Without appropriate services, these children end up with impaired ability to interact appropriately with family and peers; create family stress; become stigmatized as problem children; fail to develop school readiness skills and behaviors; cause disruptions to other children's learning, socialization and safety; and contribute to burn out and turnover of preschool teachers (Grannan et al 1999; Shonkoff & Phillips, 2000).

The TFK Coalition collected information from the research literature and from local day care centers about the extent of children at risk in the Worcester area. They found that 3.1% of children in four local day care centers, enrolling over 300 preschool children, were so disruptive they were expelled or would have been if the parents did not voluntarily withdraw them, with an additional 14% identified as at risk of expulsion. They also anecdotally connected the increasing difficulty in managing classrooms with high staff turnover, ranging up to 46% in one year. At the same time, only one Center reported access to early childhood mental health services. Based on this information, the TFK Coalition began to develop an intervention model. The specific focus of the project is on challenging behaviors of preschool children (ages 3 and up) enrolled in childcare centers.

**Intervention**

Given the logic model for the intervention, and information on models used elsewhere in the country (Bowdish, 2001; Ehrstine, 2001; Johnson, 2001; Kaufmann & Cohen, 2000), the TFK project designed a consultation model of intervention that focuses on: 1) short-term individual child and family assistance; 2) classroom assistance for teachers; and 3) center-wide activities to enhance parent and teacher competencies in handling early childhood behavioral issues. Staff members with early childhood mental health experience were assigned part-time

to a childcare center. Their role (entitled Child Development Advisor or CDA) is to work with the teachers to help identify children who need extra assistance; assess the child and family needs; develop a short-term intervention plan with the family; assist the teachers with classroom strategies for the child; refer the families for long term services and for other community resources; provide center-wide training sessions for all staff on early childhood behavioral issues; and assist the centers to design and deliver center-wide parent activities that enhance parent involvement in the childcare center and provide information and support on parenting skills and other family issues. The intervention also provided resources for a ‘floater teacher’ to childcare centers so that regular classroom teachers can be freed up to meet with parents, a target child, or the CDA to conduct intervention activities.

The model was planned so that the capacity of the childcare center to address the needs of children with challenging behaviors would be enhanced after an early intensive phase, and thus long term could be supported through periodic child or Center services by a CDA serving more than one childcare center

## **Evaluation**

The evaluation of the initial pilot phase of the TFK project involved assessing baseline and follow-up data from two intervention sites and two comparison sites that would not be receiving services during the first year. Additionally, a modified intervention (no 10-week teacher training, no floater teacher) was initiated in two South County Head Start centers. The lagged design for the Worcester centers was selected as a quasi-experimental design to assist in ascertaining the extent to which center-wide change comes about in addition to individual child and family change. In addition to center-wide outcomes, the evaluation was designed to carefully document individual child and family outcomes for those children and families who received one-on-one intervention from the project. Documentation of both the types of services received by individual children and families, and the types of center-wide parent and teacher training and activities, was also completed.

The center-wide assessments included a parent survey, a teacher survey and classroom observations. The parent survey was adapted from one developed by the National Association for the Education of Young Children (NAEYC). All teachers and staff were also asked to fill out a questionnaire that combined data collection on demographic and educational background, knowledge about early childhood behavioral issues, and three additional standardized questionnaires rating the job, the organization, and personal burnout. The work satisfaction scale was derived from the Minnesota Satisfaction Questionnaire-Short Form (Weiss, Dawis, England & Lofquist, 1967). An employee commitment to work scale consisting of 15 items was also used (Mowday, Steers & Porter, 1979). Finally, the Maslach Burnout Inventory, designed specifically for teachers and human service workers was used to measure emotional exhaustion, depersonalization, and personal accomplishment on the job (Maslach, Jackson & Leiter, 1996). The classroom observation chosen was 13 items on teacher-child interaction, and an additional four items on the classroom curriculum and transitions sections of the National Association for the Education of Young Children (NAEYC) validation instrument (Bredenkamp, 1987).

Children's behaviors and skills were assessed through a multi-dimensional process that started with the Early Screening Project (ESP) questionnaires (Walker, Severson & Feil, 1995). The ESP is completed by the child's teacher after a training session where early childhood externalizing and internalizing behaviors are described. Teachers identify several children in their classroom that match these descriptions. They then complete a set of four short scales for each of six children they are most concerned about, three who reflect externalizing behaviors and three who reflect internalizing behaviors.

Families of children whose scores fell in the critical range were then approached for a discussion about intervention services by the childcare administration and the child's teacher. Both children who received services and those who did not receive services, but who were indicated as needing services, were rated by the teachers three to four months after intervention services started.

Once a family agreed to receive intervention services, a more comprehensive assessment of the child and family was conducted, including a home visit, and a treatment plan initiated. Children received a brief developmental assessment, the Developmental Profile II (Alpern, Boll & Shearer, 2000). This is a developmental screen designed to identify children who may have intellectual, social, communication or adaptive behavior delays.

Parents were asked to provide baseline demographic information and to complete four additional instruments: the Family Resource Scale (Dunst & Leet, 1987); the Parenting Stress Index-Short Form (Abidin, 1995); the Life Events Scale (derived from the Parenting Stress Index long form); and the Parenting Scale (Arnold et al, 1993). The Family Resource Scale measures the adequacy of resources in households with young children. The Parenting Stress Index measures stress in the parental role, stress related to the child's behavior and temperament, and stress related to parental expectations of their child. The Life Events Scale measures common family stressors, such as a death in the family, divorce, or household moves that might affect a young child's behavior. The Parenting Scale was developed to identify common 'mistakes' in discipline by parents of preschool children. Finally, the family's home was assessed by the CDA using the HOME (Caldwell & Bradley, 1984). This scale is used to provide basic information on the extent to which parent skills and the home environment are supportive of the developmental needs of young children.

In addition to measures of child and family functioning, needs and resources, those families who receive intervention are asked to fill out a satisfaction with services scale and a Parent-Professional Relationship Scale to identify how helpful they found the assistance provided by the TFK program.

### **Sites**

The TFK was initiated in the fall of 2002 after several months of planning that finalized instruments, and introduced the project to childcare center administrators, teachers and parents. Two centers were chosen as intervention sites, two as comparison sites, and three were modified intervention sites.

Intervention Site A enrolled 74 preschool children in five classrooms. About 54% were white, with 27% African American, 16% Latino, and 11% Asian and other ethnicities. Family incomes ranged from \$5-100,000. About 14% of parents needed assistance with English. At baseline this center reported 13 children requiring behavioral assistance with 2 at risk of termination, for a rate of 17.6% needing assistance and 2.7% at high risk.

Intervention Site B enrolled 29 preschool children in two classrooms. Two thirds of the children were Latino. Family incomes are all below state median income and almost all children's care is publicly subsidized. Almost all families were noted as needing assistance with English. At baseline this center reported nine children requiring behavioral assistance, with two at risk of termination, for a rate of 31% needing intervention and 6.9% at high risk.

Comparison Site C enrolled 34 preschool children in two classrooms. 43% were White, 31% Latino, 25% African American, and 1% other. About 15% of parents were noted to need assistance with English. Family incomes ranged from \$13,000-150,000. This center reported 10 children needing behavioral intervention at baseline, with none at risk of termination, for a rate of 29% needing intervention, and 0% at high risk.

Comparison Site D enrolled 52 preschool children in 3 classrooms. The majority of families are Latino (63%), with about 19% Black, 13% White, and 5% other. Sixty-three percent of family incomes were below \$17,000 with a maximum of \$50,000. All children's care is subsidized publicly. About 25% of families were reported to need assistance with English. This center reported 37 preschoolers needing behavioral assistance at baseline and 15 at risk of termination, for rates of 71% and 28.8% respectively.

South County Modified Intervention Sites included sites with 18, 26 and 17 children ages 3-5, in four classrooms (two in one site). Almost all children and families were White, with family incomes averaging \$12,000 to \$13,700. Approximately 16% of children were identified as needing intervention, but none were identified as at risk of termination

## **Preliminary Findings and Recommendations**

The first year of implementing the Together for Kids pilot project has substantiated that behavioral issues represent a critical problem for a significant number of young children and their families in childcare centers. Data collected from parents and teachers in these centers, and from some of the families of children determined to be at risk, has revealed a number of areas for childcare center improvement, and at the same time, has documented that a center-consultation and individual intervention model can provide important benefits for children, families and day care center staff.

### **A. Center-wide Issues**

Center-wide assessments were first conducted to determine issues and needs across all children, families and staff. Overall, parents were pleased with their childcare programs, but a substantial proportion of parents identified some areas where childcare staff could communicate better about their child's development and about center policies and procedures that affect their child. In addition, 14% of parents felt staff were not sensitive to them and 18.5% felt staff are not accepting or positive toward them. These findings show that periodic surveys of families are important, especially when extra effort is put in so that an adequate response rate is obtained, and not only the most cooperative and well organized families respond. They also reveal areas where childcare centers can improve in terms of parent relations. Some staff interviewed also felt that more activities should be directed to engaging families. Parents that participated in a child discipline session at one center were overwhelmingly positive, indicating that that this approach to preventive activities with parents should be pursued more often.

In contrast to what was expected, staff at the childcare centers did not overall report large job dissatisfaction or burn out. Most overwhelmingly indicated they gain a high sense of personal accomplishment in their work, although staff at some sites reported more emotional exhaustion. This assessment is helpful to begin to address staff issues that may interfere with optimal work with children, and should be conducted once a year to identify if there are staffing issues that need attention.

The staff in the 7 sites involved in the study have, on average, seven years working in the field, and turnover does not seem to be a major problem at this time. However, approximately 1/3 of the staff do not have education beyond the high school diploma or equivalency. Most feel they have adequate knowledge about early childhood behavior problems, but an evaluation of an in-service training conducted by TFK CDAs at the two Worcester intervention sites revealed that there was still room for more training. Interviews of administrators and teachers at intervention sites noted that support for the staff, and the staff training activities, were important components of the TFK intervention.

Finally, the implementation of classroom observations using the standard NAEYC validation tool was felt to be an important diagnostic tool for use in addressing overall classroom issues that can contribute to behavior problems. The trained observers made very astute observations about classroom spaces, curriculum, staff skills, and the distribution of more challenging children across classrooms. Common comments were that children's

behaviors appeared to be more immature for their ages, that the curriculum expectations needed to be adjusted for younger developmental ages (versus for the chronological age), and that teachers needed help with ‘teachable’ moments interacting with children to assist children to internalize behavioral controls, as opposed to just following external rules. These observations need to be specifically integrated into an overall childcare center plan to prevent and ameliorate children’s challenging behaviors.

## **B. Assessment of Child Behavior Problems**

Childcare staff and administrators described at baseline between 15% and 71% of children requiring mental health/behavioral intervention. In the intervention sites where a standardized internalizing and externalizing set of behavioral assessments was administered by teachers by carefully evaluating all the children in their classrooms, a rate of 22.6% of all enrolled children were identified as scoring in a risk range that required intervention. The majority of these children exhibited externalizing behavior problems, however, a number of children with serious internalizing behaviors were also identified.

In depth assessment of 12 children targeted for services revealed that, in addition to being ranked at ‘extreme risk’ on four standardized behavioral scales, many had significant developmental delays. These delays were most common on social development, academic development and communication development and ranged from 6-10 months on average, with some children evidencing delays of up to 29 months. Some of these children had already been identified, by teachers or prior service providers, as experiencing delays, however, some had never before been assessed for developmental issues. While it is not possible to suggest that the delays are causing children’s behavioral difficulties, or the converse, that behavioral difficulties cause the delays, this finding suggests that an important part of the TFK intervention is to perform a comprehensive child assessment so that a complete and comprehensive set of information is available to assist the child and family.

## **C. Family Assessment**

Family assessments of the initial 12 children targeted for services revealed that the biggest area of deficit for most of the families was knowing how to appropriately discipline their preschool age child. While some of the families had more significant stressors in terms of income, life stress, or inadequate home environments, none reported inadequate basic needs. The overall profile of targeted families found only one or two with extreme environmental deficiencies that might require extensive social service assistance beyond the TFK project. This finding suggests that for this group of children, not much time and resources in intervention strategies needed to be focused on collateral services for families. Rather, the most pressing need appeared to be specific training and help around behavioral management of their children. However, it would be important to continue assessing overall family needs in children who are targeted in order to develop the most effective, individualized intervention plan for each family.

## **D. Outcomes**

Individual assessments of children and families who received intervention services revealed that significant improvements in several areas could be measured, despite the small number of children and families for which we had complete data. Further, the level of

improvement was correlated with the level of TFK services, demonstrating a dose-response relationship suggesting the intervention is powerful and predictive. Finally, in contrast to children falling within risk cutoffs who did not receive services due to time constraints, children who received services improved their behavior substantially, while those awaiting services were rated by teachers as having even more difficulties with behavior in a follow-up assessment. This interaction effect was statistically significant and provides a controlled comparison for the effects of the intervention.

In addition to decreasing both aggressive and maladaptive behaviors, target children also made substantial improvements in developmental skills, averaging from 3 to 7 months in social, academic and communication areas. At the same time that the teachers and CDAs evaluated improvement, parents also rated their children as less difficult. The combination of three independent observers involved with the child finding measurable improvement in different dimensions addressed by the intervention, suggests that the individual intervention aspects of the model are robust and are a substantial outcome, not just a placebo effect. Finally, parents showed a statistically significant increase in their parent discipline skills. As with the child outcomes, the increase in skills was correlated with the amount of service received.

## **E. Conclusion**

Overall, the TFK model in its first year has demonstrated that it can effectively address child behavior problems in childcare centers. However, interviews with teachers, administrators, and the CDAs revealed that it was not all smooth sailing in getting the program launched and operating. In particular, it is less clear what the overall center impacts have been, although the center interview respondents were quite positive about the program and its impact on staff and families.

Several common themes emerge for further program refinements. These include careful structuring and planning of training, and support time for the CDA so that the limited time available is used to maximal effectiveness. Along these lines, it may be necessary to increase CDA time, at least during the first phases of the project, in order to have the time and flexibility to meet with parents, conduct center-wide parent meetings, and conduct home visits, while still being in the center for individual work with children, modeling, and teacher training. This would also allow more children to be served initially, rather than having a waiting list where children could potentially age-out before receiving needed services. In addition, a better definition of the role and skills of the floater teacher needs to be worked out so this resource provides more contribution to support the overall objectives of the project. Finally, more activities need to be directed to the larger group of children and families who are identified as at risk, but who must wait for individual intervention.

## **First Year Report**

### **I. Introduction**

The Together for Kids (TFK) project grew out of two years of work of over 30 childcare, health care, child welfare, and social service agencies concerned about early childhood mental health issues. These concerned constituents, like others across the country, were responding to an increase in the incidence of young children exhibiting challenging behaviors that were resulting in disrupted early childhood classrooms and children being expelled from programs (Grannon et al, 1999; Swanson, 2001). Locally, there was also a concern about the growing number of public school special education students with diagnoses of emotional impairment/behaviorally disordered in the early grades. The behaviors exhibited by these children typically include biting, hitting, throwing things, defying adults, or becoming withdrawn and unable to interact with others.

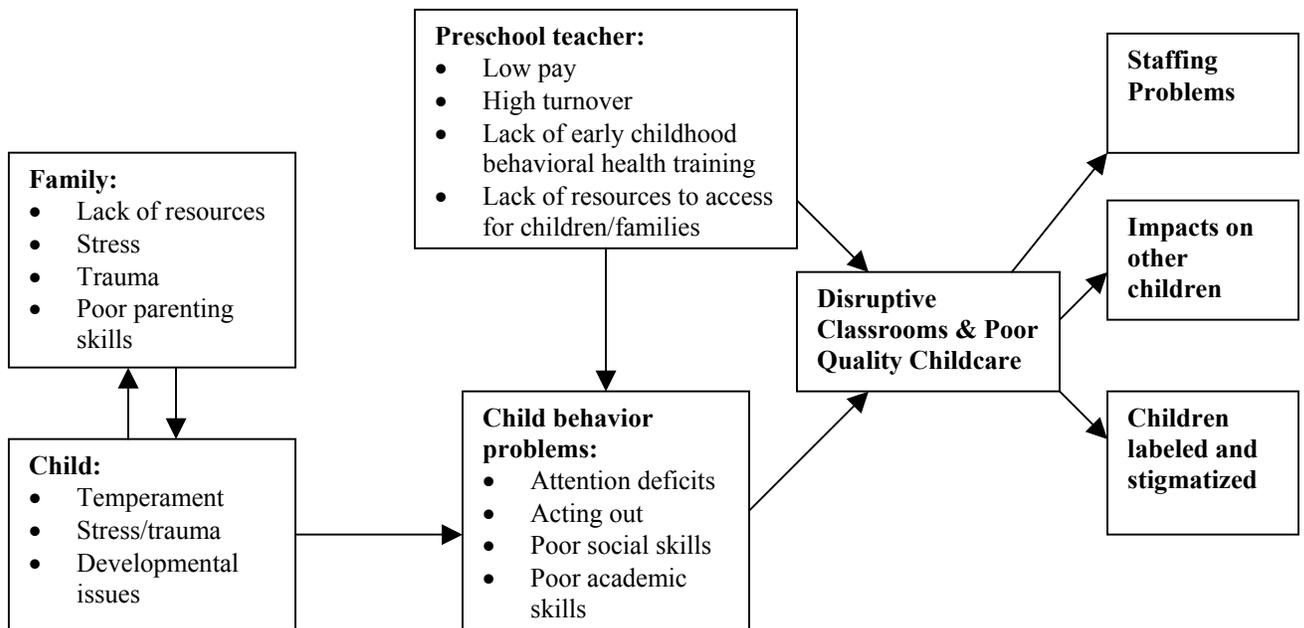
The importance of addressing the needs of these children at an early stage has been emphasized by a broad array of mental health and childcare professionals. Without appropriate services, these children end up with impaired ability to interact appropriately with family and peers; create family stress; become stigmatized as problem children; fail to develop school readiness skills and behaviors; cause disruptions to other children's learning, socialization and safety; and contribute to burn out and turnover of preschool teachers (Grannan et al 1999; Shonkoff & Phillips, 2000). The wide-ranging implications of the growing numbers of young children with challenging behaviors provide crucial evidence for action to both better understand the reasons, and to develop effective intervention approaches.

The TFK Coalition collected information from the research literature and from local day care centers about the extent of children at risk in the Worcester area. They found that 3.1% of children in four local day care centers, enrolling over 300 preschool children, were so disruptive they were expelled or would have been if the parents did not voluntarily withdraw them, with an additional 14% identified as at risk of expulsion. They also anecdotally connected the increasing difficulty in managing classrooms with high staff turnover, ranging up to 46% in one year. At the same time, only one Center reported access to early childhood mental health services. Based on this information, the TFK Coalition began to develop an intervention model. The specific focus of the project is on challenging behaviors of preschool children (ages 3 and up) enrolled in childcare centers.

## II. TFK Logic Model

The Project has drawn upon a multidisciplinary framework to develop an analysis of both the problem and the necessary intervention strategy. The approach is to recognize that there are multiple sources of risk for children, and that prevention and intervention require addressing multiple factors that impinge on early child development (Bronfenbrenner, 1994; Shonkoff & Phillips, 2000). Diagram 1 (below) outlines the basic elements of a multifactor analysis of how a child ends up developing challenging behaviors that result in negative consequences for the child, other children in the childcare center, and the childcare center. The important conclusion is that factors inherent to the child are only one causal factor; the way both the family and the childcare center staff interact with a child can exacerbate or ameliorate the child's difficulties. Using a model of risk and resilience (Sameroff & Fiese, 2000), our approach derives from the assumption that there are multiple sources of both support and difficulty for each child.

Diagram 1. Problem model: Sources of difficulty for young children with challenging behaviors and the outcomes

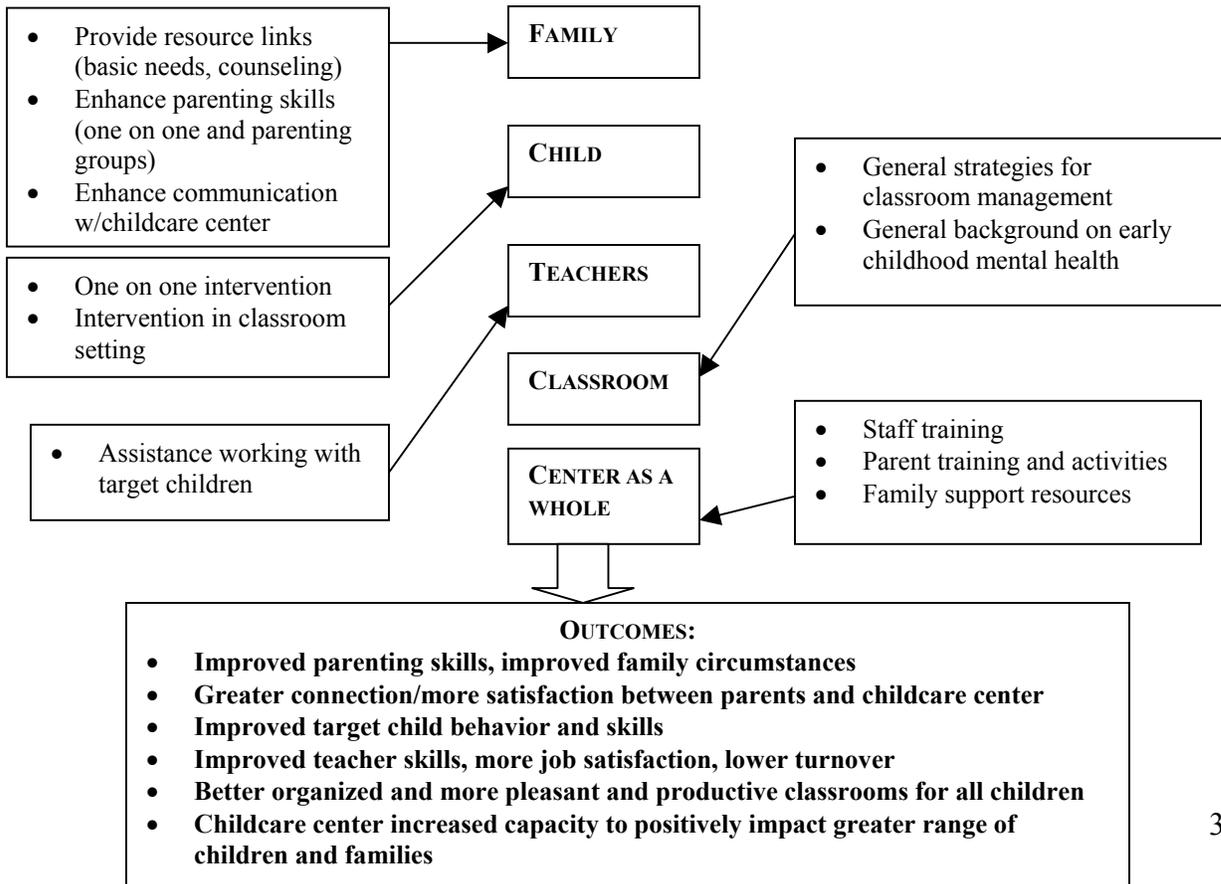


### III. TFK Intervention Model

The intervention model used by TFK is based upon the analysis of the multiple sources of risk and support. Diagram 2. (see below) illustrates that the intervention has multiple foci, including the family, the child, the teachers, the classroom and the childcare center as a whole. The assumption is that families under stress, experiencing trauma, lacking in resources, and having poor parenting skills will benefit by access to assistance on all of these dimensions through both individual treatment, and more family-oriented activities and supports from the childcare center. The child can benefit from both one-on-one intervention around specific skills and behaviors, and at the same time modeling of classroom behavior. The teachers need specific assistance addressing the needs of specific children in their classroom who are challenging. In addition they need both better general knowledge about child development and behavior in order to set appropriate expectations, and specific knowledge about how to handle challenging behaviors in the classroom effectively. Overall, childcare centers will benefit from enhanced staff training, providing parent training sessions, and knowing how to access other types of resources for families.

Our expectation is that the intervention model will result in improvements in both the at risk families and children, and the teachers and childcare centers as a whole. Parents will know better how to interact with their child and the child will learn new skills and exhibit less problematic behavior at home and in childcare. In addition, families will have access to more resources and supports to address their sources of family stress. Teachers will also demonstrate skill development, lower turnover, and the classroom climate will improve. Overall, parents whose children attend the childcare centers will be more satisfied with the care.

Diagram 2. TFK Intervention Model



Given the logic model for the intervention, and information on models used elsewhere in the country (Bowdish, 2001; Ehrstine, 2001; Johnson, 2001; Kaufmann & Cohen, 2000), the TFK project designed a consultation model of intervention that focuses on: 1) short-term individual child and family assistance; 2) classroom assistance for teachers; and 3) center-wide activities to enhance parent and teacher competencies in handling early childhood behavioral issues. Staff members with early childhood mental health experience were assigned part-time to a childcare center. Their role (entitled Child Development Advisor or CDA) is to work with the teachers to help identify children who need extra assistance; assess the child and family needs; develop a short-term intervention plan with the family; assist the teachers with classroom strategies for the child; refer the families for long term services and for other community resources; provide center-wide training sessions for all staff on early childhood behavioral issues; and assist the centers to design and deliver center-wide parent activities that enhance parent involvement in the childcare center and provide information and support on parenting skills and other family issues.

The model was planned so that the capacity of the childcare center to address the needs of children with challenging behaviors would be enhanced after an early intensive phase, and thus long term could be supported through periodic child or Center services by a CDA serving more than one childcare center. In addition to the CDA role, the model provided resources to the childcare centers to hire an additional classroom teacher  $\frac{3}{4}$  time. The Centers were to use this 'floater' teacher to substitute for the regular teachers while they met with parents whose children were receiving short term intervention, attended training, or while they performed other activities necessary to assist the targeted at risk children.

#### **IV. Evaluation Model: Outcomes, Instruments and Measures**

The evaluation of the initial pilot phase of the TFK project involved assessing baseline and follow-up data from two intervention sites and two comparison sites that would not be receiving services during the first year. Additionally, a modified intervention (no floater teacher or formal teacher training workshop) was initiated in two South County Head Start centers (although some baseline data were collected from a third site as well), for which most data are also available. The lagged design for the Worcester centers was selected as a quasi-experimental design to assist in ascertaining the extent to which center-wide change comes about in addition to individual child and family change. In addition to center-wide outcomes, the evaluation was designed to carefully document individual child and family outcomes for those children and families who received one-on-one intervention from the project. Documentation of both the types of services received by individual children and families, and the types of center-wide parent and teacher training and activities, was also completed.

## A. Center-wide Outcomes

The initial goal was to collect center-wide parent satisfaction data, center-wide teacher background and morale data, and conduct classroom observations of each preschool classroom at the beginning of the fall 2002 and at the end of 'school year', spring 2003; repeating this again in the fall 2003 and spring 2004. Contrasts would then be made between the pilot and the comparison sites.

For center-wide change, we hypothesized that we would find for the pilot centers where intervention services were being initiated, compared to the comparison centers that would receive no service the first year:

- a) parents would report more satisfaction with their childcare program and more communication about their child's behavior;
- b) staff would report less morale/burnout problems and increased skills in handling challenging behaviors; in addition, staff turnover due to the job climate would be smaller [turnover due to family emergencies or planned return to school etc. would not be considered inappropriate turnover];
- c) classroom observations of overall climate and teacher ability to control the classroom will show improvement; and
- d) the childcare centers would successfully integrate the mental health consultation model into their operations, including integrating it within their communication with families and into staff training

The parent satisfaction scale chosen was the National Association for the Education of Youth Children ( Bredekamp, 1987 ) questionnaire, with some items added about communication with the childcare center about children's behavioral issues. This scale is widely used by childcare programs that desire certification from NAEYC and many of the items are also on the Massachusetts Office of Childcare Services (OCCS) required annual parent survey.

The staff questionnaire combined data collection on demographic and educational background, knowledge about early childhood behavioral issues, and three additional standardized questionnaires rating the job, the organization, and personal burnout. The work satisfaction scale was derived from the Minnesota Satisfaction Questionnaire-Short Form (Weiss, Dawis, England & Lofquist, 1967). This asked about satisfaction with one's current job. Alpha coefficients range from .88 to .91 for total score. An employee commitment to work scale consisting of 15 items was also used (Mowday, Steers & Porter, 1979). Studies with different occupational groups show that alpha coefficients range from .82 to .93. Finally, a job burnout measure was used. The Maslach Burnout Inventory is designed specifically for teachers and human service workers. It measures emotional exhaustion, depersonalization, and personal accomplishment on the job (Maslach, Jackson & Leiter, 1996). Alpha reliabilities for each subscale (.90, .79 and .71 respectively) are adequate.

The classroom observation chosen was 13 items on teacher-child interaction, and an additional four items on the classroom curriculum and transitions sections of the National

Association for the Education of Young Children (NAEYC) validation instrument (Bredekamp, 1987). This instrument was chosen because it reflects the quality standards required for NAEYC accreditation and because trained observers could be hired to implement it, providing good standardization of the observations.

In addition to the standardized measures, the evaluation included small, criterion referenced feedback questionnaires to evaluate the impact of teacher training sessions and parent activities or trainings provided by the childcare centers. Finally, documentation of the implementation of the project was accomplished by interviews with center directors, teachers, and mental health consultants.

## **B. Child and Family Outcomes for Intervention Children**

Outcome goals were established for both children and families identified as at risk and receiving intervention from the project. For children, we hypothesized that the intervention would:

- a) decrease challenging behavior;
- b) increase positive functioning; and
- c) increase age appropriate skills.

For parents, we hypothesized that the intervention would:

- a) increase their skills in dealing with their child's challenging behavior;
- b) increase overall parenting skills;
- c) connect them with additional resources; and
- d) increase their collaboration with the childcare center and involvement with the child's classroom teacher.

Children's behaviors and skills were assessed through a multi-dimensional process that started with the Early Screening Project (ESP) questionnaires (Walker, Severson & Feil, 1995). The ESP is completed by the child's teacher after a training session where early childhood externalizing and internalizing behaviors are described. Teachers identify several children in their classroom that match these descriptions. They then complete a set of four short scales for each of six children they are most concerned about, three who reflect externalizing behaviors and three who reflect internalizing behaviors: Critical Events Index (a checklist of 16 serious behaviors) either the Aggressive Behaviors Scale (for externalizing children) or the Social Interaction Scale (for internalizing children); the Adaptive Behavior Scale; and the Maladaptive Behavior Scale. Ratings of internal consistency for our sample range from .78 to .81 on the Aggressive Behavior Scale, .85 to .95 for the Social Interaction Scale, .79 to .92 for the Adaptive Behavior Scale, and .84 to .89 for the Maladaptive Behavior Scale. Discriminant function analysis reported in the ESP Manual, shows that the ESP has a very low rate of false positive diagnoses, with sensitivity rates ranging from 62% to 100%, and specificity rates ranging from 94% to 100%. The scales have been validated against other behavior scales, such as the Connors. The scales are also sensitive to intervention.

Teachers were asked to rate the children at baseline to determine need for services. The scales were then scored by the evaluation team and compared to standardized norms calculated separately for boys and girls. Families of children whose scores fell in the critical range were then approached for a discussion about intervention services by the childcare administration and the child's teacher. Both children who received services, and those who did not receive services, but who were indicated as needing services, were rated again by the teachers three to four months after intervention services started.

The other child-focused assessment was the Developmental Profile II (Alpern, Boll & Shearer, 2000). This is a brief developmental screen designed to identify children who may have intellectual, social, communication or adaptive behavior delays. There are five subscales, physical, self-help, social, academic and communication. The instrument has extensive norms and good internal reliability on each subscale ranging from .78 to .87. Interrater reliability is

also high, with 71% of raters achieving identical ratings, 79% within one point, and 100% within two points. The measure has shown strong correlations to other more detailed measures of development and intelligence and has been shown to reflect change due to intervention. This screen was administered in the home by the CDA after parent permission and agreement to short term intervention for those children determined to be at risk. It was re-administered 3-4 months later at the end of the short-term intervention.

For those families whose children were identified as at risk based on the teacher ratings on the ESP, and who agreed to participate in the intervention, a home visit was conducted to collect a wide variety of parent and family measures. These included: baseline demographic information; the Family Resource Scale (Dunst & Leet, 1987); the Parenting Stress Index-Short Form (Abidin, 1995); the Life Events Scale (derived from the Parenting Stress Index long form); the Parenting Scale (Arnold et al, 1993); and the HOME (Caldwell & Bradley, 1984). With the exception of the HOME, all the scales are self-report by the parent(s).

The Family Resource Scale measures the adequacy of resources in households with young children. This includes basic needs for food, housing, income, social services, support, and family activities ranging from the most basic to more life enhancing. There are 30 items rated on a five-point scale of 'not at all adequate' to 'almost always adequate'. Alpha reliability for the scale is .92 and test retest stability over five months was found to be .52. This instrument was used to help the project identify family needs that if fulfilled, would lessen family stress and contribute to a better family environment for young children.

The Parenting Stress Index-Short Form consists of 36 items derived from a 100-item, well-established research and intervention instrument. The items comprise a total score and three subscales: Parental Distress (stress in role as parent such as role restrictions/depression); Parent-Child Dysfunctional Interaction (stress related to the child not meeting the parent's expectations); and Difficult Child (stress related to behavioral characteristics of children that make them difficult to manage). Alpha reliabilities for the total scale are .91, and for each subscale range from .80 to .87, and 6-month test-retest reliabilities range from .84 for the total scale, with .68 to .85 for the subscales, with the Parent-Child Dysfunctional Interaction being the least stable. The questionnaire has been normed on 800 children and clinical cutoff and percentile scores are provided.

Similarly, cut off scores and norms are available for the Life Events Scale, derived from the longer Parenting Stress Index. This scale taps common life events that can generate either positive or negative stress for families, such as a death in the family, divorce, job loss, housing moves, marriages etc. By identifying sources of stress in a family, the intervention plan can assist both the family and the child who may be acting out the stress to identify coping and resource strategies. This scale was used as a treatment planning indicator not a measure of outcome.

The Parenting Scale is a 30-item scale developed to identify common 'mistakes' in discipline by parents of preschool children. It includes a total score and three subscales: Laxness, Overreactivity, Verbosity. The Laxness scale measures the extent to which parents notice but do not respond to misbehavior; the Overreactivity scale measures emotional

reactivity of parents in discipline situations; and the Verbosity scale measures coxing, begging or lengthy explanations versus limit setting. It was initially designed and tested on Head Start parents. Alpha reliability for the total score is .84 and .83 and .84 for the Laxness and Overreactivity subscales. The Verbosity subscale is less well defined and demonstrated an alpha of only .63. The Parenting Scale was used to measure improvements in parental discipline skills.

Finally, the HOME was used to provide basic information on the extent to which parent skills and the home environment were supportive of the developmental needs of young children. It has been well used and standardized across a wide range of children and families. The preschool version is a 55-item scale with subscales for: learning stimulation, physical environment, warmth and affection, academic stimulation, modeling, variety in experience, and acceptance. The total scale alpha with a large sample of families during instrument development was .93, with a range of .53-.85 for subscales. This scale is completed by the CDA and provides an independent observation of some of the dimensions that are also tapped from parents self-report. This measure was used to assist the CDAs in planning family interventions, more than as a measure of change. This is because certain scales are dependent on family resources that are unlikely to change in the short time frame for individual intervention (e.g. the quality of the physical environment, whether the family takes vacations together, whether the family eats together in the evening—which may be dependent on family work schedules etc.).

In addition to measures of child and family functioning, needs and resources, those families who receive intervention are asked to fill out a satisfaction with services scale and a Parent-Professional Relationship Scale to identify how helpful they found the assistance provided by the TFK program.

## **V. Project Implementation**

The TFK project was initiated in the fall of 2002 after several months of planning that finalized instruments, and introduced the project to childcare center administrators, teachers and parents. The centers involved in intervention and those used as comparison sites varied along a number of dimensions, including the demographic background of children and families, number of children in need of behavioral intervention, staff turnover, staff training, and prior mental health consultation as can be seen below.

## A. Description of Preschool Sites

*Intervention Site A* enrolled 74 preschool children from 2 years 9 months through 4 years 8 months at baseline in 5 classrooms, with 2 lead teachers, 7 teachers and 2 aides. Two of the classrooms had one teacher and 10 or 11 children, while the other three had two teachers and 14 to 21 children. The children were almost evenly distributed between boys and girls, and about 54% were White, with 27% African American, 16% Latino, and 11% Asian and other ethnicities. Family incomes ranged from \$5000-100,000. About 14% of parents were reported to have limited English proficiency. This site reported very strong parent involvement, with 75% attending individual child feedback sessions, 30% attending open houses and 50% social gatherings. At this site all the parents transport their children to and from preschool. Staff turnover in the 01-02 year was 41% and family turnover was 45%. At baseline this center reported about 13 children requiring behavioral assistance with 2 at risk of termination, for a rate of 17.6% needing assistance and 2.7% at high risk. This center had no behavioral consultation for children at baseline, although previously had mental health services on site and consultation through the Worcester Community Partnership. It collaborates with the UMass Early Intervention program for infants and toddlers and provides a once a month staff meeting and training session in the evening hours.

*Intervention Site B* enrolled 29 preschool children ranging from 2 years 10 months to 4 years 10 months at baseline in two classrooms with one lead teacher, four teachers and one assistant teacher. One classroom had 14 children, the other had 15, with boys exceeding girls 18 to 11. Two thirds of the children were Latino, with only two White, two Black, two Brazilian, and two children of other ethnic backgrounds. Family incomes are all below state median income and almost all children's care is publicly subsidized. Almost all families were noted as having limited English proficiency. About 50% of parents were reported to attend individual feedback sessions on their children, with about 1/3 attending open houses and 40% social gatherings. Staff turnover during 01-02 was noted as zero, with family turnover being about 55%. At baseline this center reported nine children requiring behavioral assistance, with two at risk of termination, for a rate of 31% needing intervention and 6.9% at high risk. This center has an ongoing contract with Worcester Youth Guidance for 33 hours a year of consultation, and previously had more services through the Worcester Community Partnership as well as on site therapy. It collaborates with the UMass Early Intervention program for infants and toddlers and provides two staff development days a year addressing different topics, including behavior and discipline. It also provides \$200 staff stipends for attending outside training.

*Comparison Site C* enrolled 34 preschool children ages 2 years 9 months to 5 years at baseline, in two classrooms with one lead teacher, 3 teachers and one assistant teacher. The children were almost evenly distributed between boys and girls, with 43% White, 31% Latino, 25% African American, and 1% other. About 15% of parents were reported to have limited English proficiency. Family incomes ranged from \$13,000-150,000. About 80% of parents attend individual feedback sessions on their children, 40% attend social gatherings and 35% open houses. Staff turnover for 01-02 was noted as 20%, and family turnover at 40%. This center reported 10 children needing behavioral intervention at baseline, with none at risk of termination, for a rate of 29% needing intervention, and 0% at high risk. A monthly staff

training is provided on different topics, including child behavior. No regular behavioral consultation is in place.

Comparison Site D enrolled 52 preschoolers ranging in age from 2 years nine months to five years in 3 classrooms with 3 lead teachers, 3 teachers, and 3 assistant teachers. Boys outnumber girls by 31 to 21. The majority of families are Latino (63%), with about 19% Black, 13% White, and 5% other. Sixty-three percent of family incomes were below \$17,000 with a maximum of \$50,000. All children's care is subsidized publicly. About 25% of families were reported to have limited English proficiency. This center reported the lowest parent participation, with about 51% attending individual sessions on their child's progress, 9% attending open houses, and 9% social gatherings. Staff turnover for 01-02 was zero, and family turnover 48%. This center reported 37 preschoolers needing behavioral assistance at baseline and 15 at risk of termination, for rates of 71% and 28.8% respectively. This center has an ongoing consultation contract with the Worcester Youth Guidance Center for child and family intervention and therapy and provides 6-8 staff trainings a year on a wide range of topics, including child behavior.

South County Intervention Sites included three sites with 18, 26 and 17 children ages 3-5, in four classrooms (two in one site). Boys and girls were represented in almost equal numbers. A total of 3 lead teachers, two teachers and 3 teacher aides were employed at these sites. Almost all children and families were White, with family incomes averaging \$12,000 to \$13,700. They report only a 5% parent turnover and 12.5% teacher turnover. Approximately 16% of children were identified as needing intervention, but none were identified as of risk of termination. Parent participation was rated as 100% attending individual sessions about their children's progress, 20% attending open houses, and a range of from 10% to 50% attending social gatherings.

## **B. Implementation Steps**

Two Child Development Advisors were hired in early fall 2002. A third CDA was hired for the South County project in December. They were clinical staff with background in early childhood mental health issues who would spend half time working each with one of the intervention sites (or two sites in the case of the South County CDA). They assisted in setting up project implementation and collecting the center-wide baseline information prior to initiation of individual child and family interventions

In September and October, introductory meetings were held with the Worcester center directors, and Center staff to introduce the project and to provide materials that would familiarize parents with the project at the intervention sites. A similar process was used with the South County sites a bit later in the fall. During this period, University Human Subjects Review Committee approval was obtained and measures were translated into Spanish for Latino parents. In each Center the first step was to collect baseline information from preschool teachers and parents on the center-wide measures, and to conduct a baseline classroom observation in each classroom.

### C. Center-wide Baseline Measures

Each center needed to plan times to orient teachers and to set up processes to encourage parents to fill out the center-wide parent questionnaire. In addition, because of teacher and family turnover, center-wide data collection had to be planned a few weeks into the school calendar in order for accurate feedback to be obtained. Staff at all sites were given the opportunity to meet with the TFK Coordinator and the evaluation team to discuss the protocol. Parents/guardians were also given the opportunity to meet with the Coordinator and/or a CDA to hear about the project. Times were then set up for parents to come together as a group (one intervention and one comparison site) or to stop by on an individual basis at select times (one intervention and one comparison site, plus South County sites) at the CDA "TFK questionnaire" station to complete the family surveys.

Assistance was provided by either center staff or TFK staff in all centers for parents to complete the questionnaires. At one group site, a magician for the children, food for all, and gift certificates were provided to those who completed the form. At the other sites, food and gift certificates were provided. For the parents who did not come to those meetings, staff distributed questionnaires to them and asked them to be returned either to the "TFK return box" or in a sealed envelope. Given that the children in one center were primarily bused, the follow-up surveys were mailed home with enclosed, stamped return envelopes. The return rate ranged from 60% to 84% across the sites, representing 178 completed family surveys (see Findings section for more details). In order to achieve these high return rates, data collection continued into December. Due to the great deal of time and effort it required to obtain such high response rates, center-wide parent questionnaires were not repeated as a follow up at the end of the school year.

Teacher questionnaires were distributed at meetings with explanations about why they were being asked to complete the material. One of these teacher meetings occurred in a special evening session. The rest occurred at 'nap time'. Teachers were then given two weeks to complete the questionnaires. They were provided sealed envelopes to return the completed questionnaires either to a collection box at the center, or directly to one of the TFK CDAs. Cooperation of all teachers was obtained. A total of 37 teacher baseline questionnaires were obtained, 16 at intervention sites, 13 at comparison sites and 8 from South County. Two new staff hired after questionnaires were distributed (one at an intervention site, one at a comparison site) were not asked to complete the questionnaires. Due to the response burden of also completing the ESP at two points in time during the school year, plus teacher evaluations of a CDA behavioral training series, a follow-up teacher packet was not distributed as originally planned at the end of the school year. Follow up is now planned for early fall of 2003 for both parent and teacher surveys, at which time comparative analysis will be conducted within and among the sites.

Finally, classroom observations were completed in each of 13 preschool classrooms across all four Worcester sites, and the four South County classrooms. These observations took anywhere from 1.5 to 3 or 4 hours per classroom and were conducted by trained NAEYC validators in order to assure reliable ratings. Each classroom was observed at least twice and a combined average score was used for analysis purposes. Classroom observations were

conducted again in each of the four primary TFK center during the period May-July 2003, approximately 6 months after the initial observations. (Because the South County classroom observations were initiated later and the classrooms close for the summer, repeat observations were not conducted in the South County classrooms.) General feedback to the childcare director was given after all observations were completed in each site. The same procedures were used at each time point to complete the observations and to provide general feedback to the childcare center administrator.

#### **D. Identification of Target Children**

For the intervention sites, the procedures for using the ESP system for identifying target children was reviewed in a group meeting with all preschool teachers. At this meeting, teachers were asked to think carefully about all the children in their classroom and identify five children who were exhibiting externalizing behavioral issues and five exhibiting internalizing issues. They were then asked to complete the 4 ESP measures on each of 6 children in their classroom, the first three children on each of their externalizing and internalizing lists. A total of 42 children were thus rated on the ESP across all the Worcester intervention site classrooms (6 children in each of 7 classrooms). The instruments were provided to the evaluation team in a manner that concealed children's identity, and the team scored them and compared children to norms. Through this process, a total of 24 children were identified as meeting criteria for being at risk, or 23.3% of preschool children enrolled at the two Worcester intervention sites. This included 17 boys and 7 girls, with 14 externalizing and 10 internalizing. These represented children in 5 of the 8 classrooms. In the South County sites, 22 children were evaluated and 13 scored above cut offs on externalizing behaviors, representing 21.3% of enrolled children.

Once children were identified as exhibiting behavior that warranted concern based on the ESP, the childcare administrator was informed and the administrator and teachers decided which children to target for intervention services. The goal was to have each CDA work with 3 or 4 children at a time, therefore not all children and families at risk could be served immediately. Families were then approached and asked to officially consent to services. Families were for the most part happy to receive assistance with their children, and none refused services, although in one case difficulties obtaining parent consent from both parents resulted in another family being selected for initial intervention. The start of individual intervention targeted 8 children and their families at the Worcester sites 5 boys and 3 girls, all with externalizing behavior problems. Of these, two children dropped out because family finances did not allow continuation in childcare. As children and families reached the 3<sup>rd</sup> or 4<sup>th</sup> month of involvement with TFK, the individual intervention was phased out. The classroom teachers were then asked to re-evaluate the intervention children, and the remainder of the 34 children previously screened with the ESP and a new cohort of at risk families and children were to be enrolled in individual service interventions. Because of the turnover of one of the original CDAs, initiation of services for additional children has not yet occurred in one of the sites. In the other site, 4 new children and families are now receiving intervention services. A total of four children and families in two of the three South County sites received individual intervention during the time period reported here.

## **E. Individual Child and Family Interventions**

Once families consented to receiving services the next steps were to complete the comprehensive child and family assessment, a home visit, and a service plan. Because of scheduling difficulties with working families, completing this process took longer than expected, often several weeks. This delayed the initiation of formal services with families, however the CDAs reported that the thorough assessment was extremely useful and they considered it part of the intervention. Follow up assessments could be completed on only 8 of the 12 children. In two cases children dropped out of services when families left the childcare programs; in two cases the centers closed for the summer before a complete cycle of intervention and assessment could be completed (South County).

On the average then, the intervention families received actual intervention services for about two months before the CDAs started to phase them out. Families and children received a total of 10.75 to 36.5 hours of services individually from the CDAs, including a combination of short term TFK services and the initiation of longer term services from Worcester Youth Guidance Center by the CDAs during the initial 3-month window of service delivery. Several of the families were referred to longer-term family or child therapy services that are continuing, paid for by family health insurance.

In terms of how the CDAs spent their time, the most hours were spent, not surprisingly, in preparation and meetings. In terms of targets of activity, the most hours were spent working with the program directors and teachers, next working with the individual children, and third with the child, parent and teacher in team meetings. In the Worcester sites, relatively few hours were spent on collateral contacts arranging other services for children and families, while somewhat more was spent on this task at the South County sites. Interactions with teachers seemed to be more through general support, training and observation than modeling or individual assistance with target children. Thus individual intervention with children was undertaken directly by the CDAs, and less often did the CDA specifically work on transfer of skills to teachers or parents around handling individual children.

## **F. Center-wide Teacher and Parent Interventions**

In addition to individualized services, the project's goal was to deliver training and other types of group activities to both teachers and parents. At the two intervention sites, a nap time training series of 10-12 sessions was delivered to all teachers by the CDAs. These sessions focused on understanding and managing challenging behavior in preschool children. An end of session evaluation revealed that while teachers had some level of knowledge, a substantial number could benefit from more training on early childhood behavior problems. CDA evaluation of the sessions revealed that it was very difficult to conduct teacher trainings at nap time, since children still had to be supervised and voices had to be kept very quiet.

Several other center-wide sessions were also conducted. Staff at one intervention site had a one hour session on "How to build positive relationships with parents," attended by 6 participants. A total of four additional trainings were delivered to combined groups of parents and staff during after school hours at intervention sites. One session was on "The impact of violence on young children," attended by 10 staff and 5 parents at Site A. A one-hour session on "Positive Discipline" was also delivered at both Worcester intervention sites and at one of the South County sites for both staff and parents. Site A had 1 staff member and 15 parents in attendance at this session; Site B had 3 parent participants; and the South County site had 3 staff and 6 parent participants.

## VI. Findings

### A. Center-wide Data

#### 1. Center-wide surveys: Parent responses

*Descriptive information.* Surveys were completed by 178 parents across the Worcester pilot, and the South County extension sites. These surveys provided baseline descriptive assessments of general parent views of the preschools prior to the intervention. The return rates (percentage of parents who completed surveys) for these centers were quite high, so we can be confident that the results are representative of the general population of parents in these centers. The number of surveys sent out to parents in each center, and the number of surveys that were returned were as follows:

Table 1. Response rates for parent surveys

Site	Number sent out	Number returned
Intervention A	73	62 (85%)
Intervention B	32	27 (84%)
Comparison C	54	35 (65%)
Comparison D	30	20 (67%)
South County	57	34 (60%)
Total	247	178 (72%)

Data were aggregated within the two Worcester intervention sites (representing 89 total surveys), the two Worcester comparison sites (representing 55 total surveys), and the South County Extension sites (representing 34 total surveys). An equal number of parents of boys and parents of girls completed surveys in each center. However, there were significant differences in the reported ages of children within the three samples. The intervention site children were significantly younger (mean age = 42 months), than the children in the comparison sites (mean age = 50 months), while the South County sites fell in between (mean age 47 months). There were no significant differences in the length of time children in the intervention, comparison, and South County sites attended their preschool programs, although parents in the Worcester intervention and comparison sites completed surveys in November and December of 2002, while parents in the South County sites completed surveys in February of 2003, due to the later start-up of these centers in the project.

Table 2. Length of time parents reported their child had been enrolled in the program

Site	< 6 months	6 mo. to 1 yr.	1 to 2 yrs.	> 2 yrs.
Intervention	27 (31%)	12 (14%)	26 (30%)	23 (26%)
Comparison	12 (23%)	20 (38%)	9 (17%)	12 (23%)
South County	11 (32%)	9 (26.5%)	12 (35%)	2 (6%)

*Parent views of the preschool programs.* In the center-wide assessments, parents were asked about how much they liked the preschool program, how much their child liked the

program, their child's behavior in preschool as reported by the teacher, and about how much communication and opportunity for participation there were in the preschool program.

Overall, there were no significant differences between the intervention, comparison, and South County sites in how much parents and children liked their preschool programs. Most parents (86.5% in the intervention sites, 92.7% in the comparison sites, and 97.1% in the South County sites) reported that they liked their child's preschool "a lot." Similarly, most (83.1% in the intervention sites, 87.3% in the comparison sites, and 94.1% in the South County sites) reported that their children also liked their preschool "a lot."

Parents were asked about teacher reports of their child's behavior in the preschool in different areas (e.g., ability to follow directions, stay on task, get along with peers, etc.). In asking these questions, we hoped to find out general levels of behavior problems, as well as how much parents were informed by teachers of their child's behavior while at school, that is, how much teacher-parent communication was occurring regarding child behavior. Parents' responses to these questions are summarized in Table 3 below.

Table 3. Parent report of childcare center communication

<b>Child Behavior: Ability to follow directions</b>			
	Has not been told	Child has problem	Child has no problem
Intervention	16%	7%	77%
Comparison	9%	11%	80%
South County	3%	18%	79%

<b>Child Behavior: Ability to concentrate on tasks</b>			
	Has not been told	Child has problem	Child has no problem
Intervention	28%	8.5%	63%
Comparison	12%	4%	84%
South County	12%	15%	73%

<b>Child Behavior: Ability to get along with others</b>			
	Has not been told	Child has problem	Child has no problem
Intervention	9%	8%	82%
Comparison	6%	2%	92.5%
South County	6%	12%	82%

<b>Child Behavior: Having positive feelings about self</b>			
	Has not been told	Child has problem	Child has no problem
Intervention	21%	5%	74%
Comparison	15%	0%	85%
South County	32%	0%	68%

<b>Child Behavior: Ability to do things independently</b>			
	Has not been told	Child has problem	Child has no problem
Intervention	12%	1%	87%
Comparison	6%	0%	94%
South County	6%	3%	91%

<b>Child Behavior: Expressing feelings appropriately</b>			
	Has not been told	Child has problem	Child has no problem
Intervention	21%	7%	72%
Comparison	10%	8%	83%
South County	6%	6%	87.5%

Chi Square analyses revealed no significant differences between sites in the number of children having behavioral problems (within the different behavioral categories) as reported to parents by teachers. However, there was a significant difference between sites in the number of parents who reported that the teacher had not told them about their child’s behavior. In the behavioral area of ‘ability to concentrate on tasks,’ a greater number of parents in the intervention sites, as compared to the comparison and South County sites, reported that the teacher had not told them about their child’s behavior in this area. There was also a nonsignificant trend ( $p=.07$ ) in the same direction for the behavioral area of ‘expressing feelings appropriately.’ It is interesting to note that across most behavioral areas, the intervention sites do show a greater number of parents reporting that teachers have not told them about their child’s behavior. Parents were also asked whether they felt that their child’s teacher understands their child. Most parents (80% of intervention sites, 86% of comparison sites, and 93% of South County sites) responded “yes,” while most of the remaining parents responded “unsure,” and only one parent responded “no.” Taken together, these results suggest that overall, most parents are happy with the preschool programs their children attend and feel that their children are understood by their child’s teacher, however, the comparison and South County sites, at baseline, may have slightly better communication with parents regarding their child’s behavior than the intervention sites.

The next set of questions, taken from the NAEYC Family Questionnaire, asked parents about the information they received about their child’s preschool program, about two-way communication between parents and teachers, including input into decisions and policies affecting children, and about the family’s feelings of acceptance by teachers. For this questionnaire, parents respond to each question “yes” it does occur, “no” it doesn’t occur, or “don’t know.”

In terms of providing program information, for most questions, greater than 90% of parents across sites said that the centers were providing the information asked about in the question, things such as hours of operation, rules/attendance policies, injuries, health etc. However, there were two items that fewer parents responded to in the affirmative, where approximately 15% or more of parents said either they didn’t know if the information was provided, or they felt it definitely wasn’t provided. They were:

- Information regarding payments and refunds: 17% of parents overall said “no” or “don’t know,” (10% of intervention site parents; 19% of comparison site parents);

Note: there were a large percentage of parents from South County who left this question blank.

- Information regarding meals and snacks given to children: 14% of parents overall said “no” or “don’t know,” (13% of intervention site parents; 22% of comparison site parents; and 6% of South County site parents)

Questions also asked about two-way communication between the teachers and parents. Again, most parents responded that the teachers did communicate. However, for some items approximately 15% or more of parents said that teachers didn’t communicate, or they didn’t know if they communicated about the issue in the question. These items were as follows:

- Families are able to give ideas about program policies, procedures, and planning to meet the needs of their children: 18% of parents overall said “no” or “don’t know,” (18% of intervention site parents; 24% of comparison site parents; and 6% of South County site parents)
- There are ways for parents (even working parents) to take part in the program, such as visiting, helping in the classroom, etc.: 13.5% of parents overall said “no” or “don’t know,” (10% of intervention site parents; 27% of comparison site parents; and 0% of South County site parents); Note: differences between sites were statistically significant
- Parent teacher conferences are held to discuss children’s progress, accomplishments, and/or difficulties at least once per year: 15% of parents overall said “no” or “don’t know,” (17% of intervention site parents; 19% of comparison site parents; and 3% of South County site parents)
- Teachers communicate with parents to ensure that the programs from which children come and go year to year provide continuity over time: 24% of parents overall said “no” or “don’t know,” (26% of intervention site parents; 24% of comparison site parents; and 18% of South County site parents)
- Changes that affect children, such as changes in room or teacher, or use of special services, are discussed with parents before decisions are made: 25% of parents overall said “no” or “don’t know,” (29% of intervention site parents; 26% of comparison site parents; and 12% of South County site parents)
- Teachers seek specific ideas for dealing with the child when at the program: 19% of parents overall said “no” or “don’t know,” (25% of intervention site parents; 15% of comparison site parents; and 12% of South County site parents)
- Children are generally taught by the same teacher(s) so that children do not have to constantly adjust to new adults: 17% of parents overall said “no” or “don’t know,” (19% of intervention site parents; 24% of comparison site parents; and 0% of South County site parents)

- At least once per year, parents are asked to evaluate how well the program is meeting their child's needs: 24% of parents overall said "no" or "don't know," (25% of intervention site parents; 22% of comparison site parents; and 24% of South County site parents)

Finally, some items asked about the family's feelings of acceptance by teachers. Here three items showed some room for improvement:

- Personally, I feel that staff are sensitive to the feelings of family members: 14% of parents overall said "no" or "don't know," (21% of intervention site parents; 11% of comparison site parents; and 3% of South County site parents)
- I feel the teachers are accepting of my family. They speak positively about families to the children and among themselves: 18.5% of parents overall said "no" or "don't know," (21% of intervention site parents; 18% of comparison site parents; and 12% of South County site parents)
- The program has an effective way of negotiating difficulties and differences that arise: 35% of parents overall said "no" or "don't know," (37% of intervention site parents; 42% of comparison site parents; and 18% of South County site parents); Note: these higher percentages may be due to parents never having a difficulty to negotiate

Overall, the intervention and comparison sites were very similar to each other. The South County sites had, in most instances, a lower percentage of parents responding "no" or "don't know." It is important to keep in mind that some of the results above could also be due to the rather large percentage of parents who have had their child in the program for less than a year. For these parents, they may not have had the opportunity to have, for example, a parent-teacher conference, or observe year-to-year transitions. Also, across centers, most parents were positive in their evaluations of the preschool programs. Some wrote glowing notes about how good the program was for their child.

However, the results also indicate room for improvement, particularly in terms of the amount of two-way communication between parents and teachers regarding policy, procedures, and decisions that affect their child, and information regarding the child's behavior and what to do about it. Making sure that transitions year to year and within the classroom (teacher changes, changes in services, etc.), are prepared for with input from parents is another area that could be improved. Finally, results of this survey also indicate that centers need to be sure that all parents feel welcome, that their feelings are respected, and that families or cultural groups are never discussed in a negative manner. Feedback to families should always be given privately and constructively.

## 2. Center-wide surveys: Teacher responses

*Descriptive information.* Questionnaires were filled out by 37 teachers, 16 from the intervention sites, 13 from the comparison sites and 8 from the South County sites. All but two teachers (working in the intervention sites) were female. Ages of teachers ranged from 19 years to 53 years, with the mean age of 30 years for teachers in the intervention sites, 31 years for teachers in the comparison sites, and 34 years in the South County sites. Marital status of teachers varied. In the intervention sites 7 were married, 2 were divorced, and 7 were unmarried. In the comparison sites, 3 were married, 1 was divorced, and 8 were unmarried. In the South County sites, 2 were married, 2 were divorced, and 4 were unmarried. Ten out of the 16 teachers in the intervention sites were parents themselves, while in the comparison sites 5 out of 13 were parents, and in the South County sites, 5 out of 8 were parents. Most teachers across centers were white (56% in the intervention sites, 77% in the comparison sites, and 63% in the South County sites). Latinos made up 31% in the intervention sites and 13% in the South County sites, while there were no Latinos working in the comparison sites. Other racial groups included 1 African American (working at the intervention sites), one Asian American (working at the comparison sites), and 2 Native Americans (at the South County sites). One teacher who checked “other” was working in the intervention sites.

In terms of education, 10 out of 16 teachers in the intervention sites had high school diplomas or GEDs, while 3 had an Associates degree, and 3 had graduated from a four-year college. In the comparison sites, 1 teacher had less than a high school diploma, 6 had attained a high school diploma, 3 had an Associates degree, and 3 had a college degree. In the South County sites, 1 had a high school diploma, 5 had an Associates degree, 1 had a college degree, and 1 had advanced certification. Nine out of the 16 teachers in the intervention sites, 5 out of 13 teachers in the comparison sites, and 3 out of the 8 teachers in the South County sites reported that they were currently continuing their education, pursuing a two-year or college degree.

Experience in working in childcare ranged from less than one year to 20 years in the intervention sites (mean = 7 years); 1 to 14 years in the comparison sites (mean = 6 years), and 3 years to 12 years in the South County sites (mean = 7.5 years). Of the 16 teachers in the intervention sites, 14 reported that they were currently lead teachers, and 2 reported that they were assistant teachers. Six teachers were lead teachers and 7 were assistant teachers in the comparison sites. In the South County sites, 3 teachers reported that they were lead teachers, 3 were assistant teachers, and 2 had administrative or other duties. Length of time working at the current childcare sites ranged from less than a year to 9 years in the intervention sites, 1 to 12 years in the comparison sites, and less than one year to 5 years in the South County sites. Within these ranges only 2 teachers in each of the intervention, comparison, and south county sites had been working there a year or less (representing 12.5%, 15%, and 25% of teachers in those sites, respectively). Additionally, 5 teachers (31%) in the intervention sites, none in the comparison, and 1 teacher (12.5%) in the South County sites had worked in the center for 1 to 2 years, and the other teachers across the sites had worked at their centers more than 2 years.

*Teacher's experience with children with challenging behaviors.* Teachers were asked how many children in their class had challenging behaviors. Teachers in the intervention sites

reported having from 0 to 8 children in their class with challenging behaviors (mean = 4.2). Teachers in the comparison sites reported 2 to 13 children with challenging behaviors (mean = 8.6), and in the South County sites, teachers reported having between 3 and 7 children with challenging behaviors (mean = 5). Analysis of variance revealed that the comparison sites reported having significantly more children with challenging behaviors than either the intervention or South County sites,  $F(2,33)=9.12$ ,  $p=.001$ .

*Teacher's level of expertise in managing challenging behaviors.* In the intervention sites, most teachers (60%) reported feeling a medium level of expertise in managing challenging behaviors in children; 20% reported having a low level of expertise, and 20% reported having a high level of expertise. In the comparison sites, most (62%) reported feeling a high level of expertise; 39% reported feeling a medium level of expertise, and none reported feeling a low level of expertise in managing challenging behaviors. In the South County sites, most (58%) reported a medium level of expertise, 11% reported a low level of expertise, and none reported having a high level of expertise. These differences were significant in Chi Square analyses ( $\chi^2=11.7$ ,  $df=4$ ,  $p=.02$ ). Thus, while the comparison sites report having significantly more children with challenging behaviors, they also report feeling greater levels of expertise in dealing with these behaviors.

*Teacher's level of knowledge of children's challenging behaviors.* Teachers were asked to rate their level of knowledge in 5 areas relating to challenging behaviors in children. The table below shows the percentage of teachers rating themselves as having low, medium, and high levels of knowledge in each area. Significant differences between sites based on Chi Square analyses are noted.

Table 4. Areas of knowledge rated by childcare staff

Area of Knowledge	Level of Knowledge	Intervention Sites	Comparison Sites	South County Sites
1. Identifying & Assessing Children with Challenging Behaviors.	Low	20%	0%	11%
	Medium	67%	46%	50%
	High	13%	54%	25%
2. Understanding the causes of challenging behaviors. *Non-significant trend ( $\chi^2=8.74$ , $df=4$ , $p=.07$ )	Low	7%	8%	25%
	Medium	80%	38.5%	62.5%
	High	13%	54%	12.5%
3. Strategies for structuring the classroom to minimize behavior problems. *( $\chi^2=16.2$ , $df=4$ , $p=.003$ )	Low	0%	15%	12.5%
	Medium	93%	23%	75%
	High	7%	61.5%	12.5%

Area of Knowledge	Level of Knowledge	Intervention Sites	Comparison Sites	South County Sites
4. Strategies for handling individual children with challenging behavior in the classroom. *( $\Gamma^2=16$ , $df=4$ , $p=.003$ )	Low	13%	0%	25%
	Medium	80%	38.5%	75%
	High	7%	61.5%	0%
5. Strategies for talking to parents about their child's challenging behaviors.	Low	20%	15%	25%
	Medium	60%	54%	50%
	High	20%	31%	25%

These results indicate that, similar to their feelings of expertise, teachers in the comparison sites rate their level of knowledge in most areas as higher than those in the intervention or South County sites.

*Teacher training in managing children's challenging behaviors.* Teachers were asked whether they received any specialized training in managing children's challenging behaviors since they began working at the center. Chi Square analyses showed that there were no significant differences between centers in the number of teachers reporting that they had received training (56% of the teachers in the intervention sites, 85% of the teachers in the comparison sites, and 62.5% of the teachers in the South County sites reported that had received such training).

Teachers who indicated that they had received specialized training were asked whether the focus of that training included topics in five specific areas, and further, whether or not they felt they would like more training in those areas. The table below shows the number of teachers who said that they had training in each area, and those that indicated they would like more training in that area. The number in parentheses represents the number of total teachers in each site who responded to the question (some teachers who did not receive specialized training also responded to the question of wanting more training in some areas).

Table 5. Training received and needed by childcare staff

Area of Specialized Training	Checked response	Intervention Sites	Comparison Sites	South County Sites
1. Identifying & assessing children with challenging behaviors.	Received training	6 (6)	10 (11)	4 (4)
	Would like more training	4 (8)	2 (11)	3 (5)
2. Understanding the causes of challenging behaviors.	Received training	6 (7)	9 (10)	2 (5)
	Would like more training	3 (8)	3 (11)	3 (5)
3. Strategies for structuring the classroom to minimize behavior problems.	Received training	6 (9)	10 (10)	0 (2)
	Would like more training	5 (7)	2 (10)	4 (4)
4. Strategies for handling individual children with challenging behavior in the classroom.	Received training	5 (7)	11 (11)	4 (4)
	Would like more training	6 (8)	3 (11)	3 (5)
5. Strategies for talking to parents about their child=s challenging behaviors.	Received training	4 (6)	8 (10)	1 (4)
	Would like more training	7 (8)	2 (11)	3 (5)

These results show that for those who responded to these questions, most reported that they had received training in each of the topic areas. For most areas of specialized training, however, many fewer teachers (particularly in the comparison sites) expressed a desire to have more training. This may indicate that they already feel knowledgeable in these areas (as reviewed above). However, it may also be due to a general dissatisfaction with the training they have received in the past. For example, when asked whether the training they had received was useful, teachers responded on a 4-point scale from 1 = “not at all useful” to 4 = “very useful.” For this question, analysis of variance showed that there were significant differences between sites in how useful they felt their training had been  $F(2,24)=6.5, p=.006$ . Post hoc analyses showed that the South County sites viewed their past training as being more useful (mean = 3.2) than either the intervention sites (mean = 2.1), or the comparison sites (mean = 1.7), which did not differ significantly from each other. Therefore, the lack of desire

for more training may stem from this general dissatisfaction with the training they have received in the past.

*Resources.* Teachers were also asked about their access to five different types of resources. Chi Square analyses showed no significant differences in access to these resources across sites, with the exception of access to family intervention services, where the South County sites reported less access to this resource than the other two sites. The table below shows the percentage of teachers within each site that reported having access to these resources.

Table 6. Childcare staff reported access to resources for children and families

Resource Type	Intervention sites	Comparison sites	South County sites
1. Case consultation services for individual children who are exhibiting challenging behaviors	27%	64%	62.5%
2. Crisis intervention services	67%	82%	37.5%
3. Referral of children for individual treatment	86%	82%	87.5%
4. Classroom observation services designed to suggest strategies for improving the operation of the classroom.	67%	73%	75%
5. Family intervention services. $*(\Pi^2=5.95, df=2, p=.05)$	80%	73%	29%

Teachers were also asked how helpful these resources had been to them in the past month on a 4-point scale, ranging from 1 = not at all helpful, to 4 = very helpful. Analysis of variance showed significant differences between the sites in their ratings  $F(2,26)= 5.03$ ,  $p=.015$ , with the comparison sites finding these resources significantly more helpful (mean = 2.9) than the intervention sites (mean = 1.75). The South County sites fell in between (mean = 2.2), and were not significantly different from the other two.

Teachers were also asked about the adequacy of several center-based resources. Teachers rated these resources on a 4-point scale from 1= not at all adequate to 4= more than adequate. Analysis of variance revealed three areas with significant differences between sites. Specifically, the South County sites reported significantly less adequate training around managing challenging behaviors than did the comparison sites, with the intervention site's ratings falling in between the two. In addition, the comparison sites reported significantly less adequate time for special activities for staff and families to get to know each other (as compared to the intervention sites), and time for special activities for families to get to know each other (as compared to both of the other two sites). Mean ratings for each resource are indicated in the table below.

Table 7. Reported adequacy of resources to work with families

How adequate are the following resources?	Intervention sites mean ratings.	Comparison sites mean ratings.	South County sites mean ratings.
1. Release time to meet with parents.	2.6	1.9	2.5
2. Release time to get expert help with managing challenging behaviors.	2.0	2.0	1.4
3. Specialists to turn to for help with challenging behaviors.	1.9	2.3	1.6
4. Training around managing challenging behaviors. *F(2,36)=5.65, p=.008	1.9	2.7	1.4
5. Special activities/events that allow teachers, administrators, and families to get to know each other. *F(2,36)=5.24, p=.01	2.9	1.8	2.1
6. Special activities/events that allow families to get to know each other better. *F(2,36)=9.90, p=.001	3.0	1.7	2.75

*Teacher job satisfaction, burnout, and organizational commitment.* Teacher job satisfaction was assessed using the Minnesota Job Satisfaction Questionnaire (MSQ). Three summary scores were created: 1) a total satisfaction score (sum of all 20 scores); 2) an intrinsic satisfaction score (a sum of 12 items tapping use of skills, independence, feeling of accomplishment, etc.); and 3.) an extrinsic satisfaction score (a sum of 6 items tapping quality of working conditions, company policies, administration, etc.). Analysis of variance revealed no significant differences between the sites on any of the subscales. Although it appears that the South County staff have somewhat lower levels of satisfaction, the high standard deviations prevent any conclusions being drawn about differences in job satisfaction across the groups. The table below shows the means, and standard deviations for each subscale in each site, as well as the normative sample means and standard deviations as reported in the MSQ manual.

Table 8. Childcare staff job satisfaction

Subscale	Intervention sites	Comparison sites	South County sites	Normative Sample
Intrinsic Satisfaction	M= 47.13 SD= 10.11	M= 43.08 SD= 5.84	M= 42.50 SD= 6.70	M= 47.14 SD= 7.42
Extrinsic Satisfaction	M= 19.07 SD= 8.55	M= 17.85 SD= 3.67	M= 14.88 SD= 5.38	M= 19.98 SD= 4.78
Total Satisfaction	M= 73.07 SD= 19.52	M= 67.31 SD= 9.60	M= 64.25 SD= 11.77	M= 74.85 SD= 11.92

Teacher burnout was assessed using the Maslach Burnout Inventory. This measure has three subscales: 1) Emotional Exhaustion (9 items tapping feelings of being emotionally drained, frustrated, and fatigued by the job); 2) Depersonalization (5 items tapping feelings of being ‘hardened’ by the job, not caring what happens to some of the students, treating students as though they were impersonal objects, etc.); and 3) Personal Accomplishment (8 items tapping feelings of being in control of emotions, dealing with problems calmly, understanding how students feel, and feelings of accomplishing worthwhile things on the job). Subscale scores are a sum of the items making up the scale. These subscale summary scores can then be categorized into high, moderate, or low, based on norms given in the manual for the scale. Analysis of variance revealed no significant group differences on any of the subscales. The table below shows the percentage of teachers who fall into the high, moderate, or low scoring categories for each subscale. The mean score for each subscale within each site is presented in parentheses in the category in which it falls.

Table 9. Childcare staff reported ‘ burnout’ scores

Maslach Burnout Inventory Subscale		Intervention sites	Comparison sites	South County sites
Emotional Exhaustion	high (scores >26)	7%	31%	25%
	moderate (scores 17 - 26)	47%	31% (M=24.5)	25%
	low (scores < 17)	47% (M=14.5)	38.5%	50% (M=17.8)
Depersonalization	high (scores > 13)	7%	0%	0%
	moderate (scores 9 -13)	7%	31%	0%
	low (scores < 9)	87% (M=3.5)	69% (M=4.5)	100% (M=1.3)
Personal Accomplishment	high (scores < 31)	100% (M=11.0)	100% (M=8.1)	100% (M=8.25)
	moderate (scores 31 -36)	0%	0%	0%
	low (scores > 36)	0%	0%	0%

These results indicate that most of the teachers fall in the low to moderate range for emotional exhaustion, although about a third of the teachers in the comparison sites and a quarter of the teachers in the South County sites fall in the high range. Most teachers also scored low on depersonalization. In terms of personal accomplishment, all scored in the high range. This means that they overall are finding their work rewarding, and most are not emotionally challenged by the work.

Finally, teacher's organizational commitment was assessed using the Organizational Commitment Questionnaire. This 15-item scale assesses employee's loyalty and attachment to the organization with questions such as 'I am proud to tell others that I am a part of this organization,' and 'I really care about the fate of this organization.' Items are rated on a 7-point scale from 1= strongly agree to 7= strongly disagree. Scores are averaged across the 15 items. Analysis of variance showed no significant differences between sites. Mean scores were 4.87 (SD=1.4) for the intervention sites; 4.59 (SD=.91) for the comparison sites; and 4.09 (SD=1.18) for the South County sites. These scores are similar to scores reported in other types of work settings (e.g., public employees M=4.5, classified university employees M=4.6, scientists and engineers M=4.4).

Overall, then, there were no significant differences between the sites in work climate as measured by teacher's job satisfaction, level of burnout, or job commitment. Scores within these areas also appear to be within expected ranges and do not reveal that these childcare workers feel undue stress with regard to their job satisfaction or job-related stress.

### 3. Classroom observations

Classroom observations were conducted in December 2002 at the Worcester sites and February at the South County sites. They were repeated in May-July in the Worcester sites. The 13-item scale on teacher-child interaction was used, in addition to two items on social skill development and two on transitions. Analysis was conducted by comparing the 8 intervention classrooms, the 5 Worcester comparison classrooms, and the 8 South County classrooms, three of which received a modified intervention, while the others did not receive intervention, on each of the three areas observed. (The South County classrooms also did not receive Time 2 or follow-up observations due to closing for the summer.) Overall, mean scores were high, but showed more variability at baseline than at follow-up (see table below). At baseline, the South County classrooms were ranked lower on all three areas than were the Worcester sites, with scores for teacher-child interaction ( $F= 9.42, p=.003$ ) and quality of transitions ( $F=6.77, p=.009$ ) being statistically significant. The Worcester sites were similar to each other.

The follow up observations conducted only at the Worcester sites revealed very high and similar scores for both the comparison and the intervention sites on social skill development and transitions. However, the intervention classrooms scored lower on teacher-child interactions and were significantly lower than the comparison sites ( $t= -5.79, p<.001$ ). In this case, the intervention sites were observed to have somewhat less desirable teacher-child interactions than the comparison sites at follow up, and the scores were in fact lower than at baseline. This finding is difficult to interpret since the intervention sites certainly received specific support on teacher-child interactions around challenging behavior. However, we suspect it may be due to slightly different standards used by the observers to rate the classrooms. For example, some observers visited comparison sites at baseline switched to intervention sites at follow-up. The data confirm that some observers are internally consistent but score a bit lower than others, and this appears to account for this counterintuitive finding.

Table 10. Classroom observation ratings

Scale	Site	Baseline mean	Follow-up mean
Teacher-child interaction	Intervention sites (8)	2.86	2.64*
	Comparison sites (5)	2.74	2.94
	South County (8)	2.32	N/A
Social skill development	Intervention sites (8)	2.78	2.91
	Comparison sites (5)	2.80	3.0
	South County (8)	2.38	N/A
Quality of transitions	Intervention sites (8)	2.81	2.97
	Comparison sites (5)	2.83	3.0
	South County (8)	2.25	N/A

\*( $t=-5.79$ ,  $p<.001$ )

In general, the evaluation team is concerned about the reliability of classroom observations to measure change as there are too many uncontrolled variables (specific group of children present, time of year, variability in observation style, and truncated scoring scale). However, the qualitative feedback from the NAEYC observers seems to be invaluable. For example, at baseline, observers reported child behaviors reflective of much younger children occurring in preschool classrooms that resulted in a mismatch between teacher plans and child capabilities. They recommended curriculum needed to be adjusted for a younger age than the chronological age of the children to enable the children to better meet expectations, and for the teachers to not induce frustrations by unreasonable demands. In another situation, the observer noted that one classroom had several children with challenging behaviors and at the same time a less skilled teacher, while the teacher with more skills had no children in her classroom with challenging behaviors. In order to begin to address the needs of the children, it seemed obvious that one step might be to reassign some children to a different classroom. In still another site, the observer noted that difficulties with the physical space were precipitating children becoming frustrated.

At follow-up, two observers in several sites noted that ‘teachable moments’ were being lost to assist children to analyze and solve problems, including conflicts. Instead, rules predominated too much. While the observers acknowledged that the rules were necessary, they also thought there could be more reflection with children about conflict situations. In one site, the observer noted that a child who obviously was more challenging than others received inordinate attention and discipline for minor infractions that were not noted or acted upon for other children. At both baseline and follow-up observers in several sites, both intervention and comparison, noted that some staff were much more highly skilled than others, and that the less well trained or less invested staff clearly brought down the overall classroom climate.

#### 4. Center-wide teacher and parent interventions

As noted in the implementation section, teachers at the two Worcester intervention sites were given a 10-12 session training on early childhood behavior problems during children's nap times. At the end of the series, teachers were given a content quiz to evaluate what they had learned from the session. As noted, the conditions were not ideal for learning, and teachers at the beginning were not told they would be having a quiz. A few teachers expressed some anger about being tested. A total of 14 teachers across the two intervention sites returned the follow-up content questionnaire. This questionnaire was developed by the evaluation team based on the curriculum materials that were employed. Questions covered possible reasons for children's challenging behavior, i.e., recognizing children's unmet needs, lack of skill or lack of fit; strategies to minimize challenging behaviors; strategies to ease transitions; helping children take responsibility for behavior; acknowledging the child's feelings and behaviors; and setting preventive classroom goals. The questionnaire used multiple response formats, including true/false, multiple choice, and short answer responses. Where necessary, the items were translated verbally by the CDA into Spanish and the teachers were able to respond in Spanish for the short-answer responses. Two items were dropped because it was clear that the questions had many right answers beyond those emphasized in the curriculum, or overlapped with other OCCS training teachers received. The final questionnaire had a total of 34 possible points.

The percentage of correct responses ranged from a low of 65% to a high of 95% (mean=81.2%). Overall, teachers did fairly well, given the less than ideal circumstances. Teachers seemed best able to identify reasons for children's challenging behaviors, identify strategies for minimizing challenging behaviors and easing transitions, and acknowledging children's feelings and behaviors. They seemed to have a little more difficulty in strategies involved in having children take more responsibility for their own behavior, and setting preventive classroom goals. Therefore, it may be necessary to spend more time on these areas in future trainings. In addition, letting teachers know from the start that they will be quizzed, and having quizzes after each section, rather than a large test at the end of the full training, may help improve teacher learning about challenging behavior in young children.

In addition, three of the five staff and parent training sessions delivered by TFK to centers had feedback questionnaires collected. For the "Impact of Violence" session at Site A, most of the feedback questionnaires were returned by teachers (n=10) and only one by a parent. The session was rated on all items, with a few exceptions, as excellent or good by all participants. Two participants rated the session as less good on 'increased understanding/ability to deal with children's mental health issues'; and one rated it lower on 'relevant to my work or life'. A few comments indicated that more time for discussion, and more specific information on resources for children who have experienced abuse would have strengthened the workshop.

The staff session at Site B on "How to Build Positive Relationships with Parents" received 6 feedback questionnaires. All ratings were at the excellent or good level with the exception of one staff member who rated the content less well on "increased understanding/ability to deal with children's mental health issues".

Finally, the session on “Positive Discipline” at a South County site was the only one where more parents attended and responded than did staff. Again, the overall ratings were very high. Four of the six parents who responded wrote very enthusiastic comments, such as, “we need this again”, “it was very informative to me”, and, “I learned a lot; a lot of good ideas about discipline for my children.” One parent suggested talking about specific issues/cases and how the problem was successfully addressed step by step.

In sum, the center-wide training sessions, while not a large part of the intervention in the pilot year, do seem to have promise for engaging parents and teachers in additional learning about early childhood behavioral issues. The parents who attended at one site seem particularly enthusiastic. For teachers, attention needs to be paid to an appropriate learning environment and appropriate expectations.

## **B. Target Child and Family Baseline Results**

### **1. Description of families**

*Demographic information.* Consent was obtained from twelve families whose children were targeted for intervention, based on their child's scores on the Early Screening Project (ESP) assessments. As part of the baseline data collected, parents filled out a demographics questionnaire, along with other questionnaires on the family and their experience of parenting the target child. Four of these target children came from Intervention site A, four from Intervention site B, and four from two South County sites. Three out of the 8 children from the intervention sites and 2 out of 4 children from the South County sites lived with both biological mother and father. Three out of 8 children in the intervention sites and 2 out of 4 in the South County sites live with only one parent or guardian, with no other adults in the household. In the intervention sites, 3 of the children are the only children in the home, while the other 5 have between 1 and 3 other children in the home. In the South County sites, 2 children are the only children in the household, 1 lives with three other children, and the other lives with 4 other children. None of the children were involved in shared custody arrangements where they lived in another household part-time.

All family questionnaires were filled out by the child's mother or female guardian. Of these, all 4 in the South County sites were white, while in the intervention sites, 2 were African American, 1 was white, 4 were Hispanic, and 1 was listed as "other." In the intervention sites, mother's reported age ranged from 19 to 46 (M=30), and in the South County sites, mothers or female guardians reported age ranged from 24 to 50 years (M=33). Four out of the 8 mothers in the intervention sites and one mother in the South County sites had not completed high school, while 2 in the intervention sites and 1 in the South County sites had a high school diploma. One parent in the intervention and 2 in the South County sites had some college, while one parent in the intervention sites had a college degree. In the intervention sites, 5 parents worked full-time, 1 worked part-time, 1 was on maternity leave, and 1 was unemployed. In the South County sites, 1 parent worked full-time, 1 worked part-time and 2 were unemployed. Reported family income for 6 of the intervention site parents and 2 of the South County site parents was under \$25,000, with 3 of the intervention and 1 of the South County parents reportedly making less than \$5,000. The other 2 of the intervention site parents made between \$25,000 and \$35,000 per year, while the other 2 South County parents made between \$40,000 and \$50,000 per year.

## 2. Home environment

To assess the home environment, a home visit was made by the CDA and the HOME Inventory for Families of Preschoolers (Caldwell & Bradley, 1984) was completed. This scale has 8 subscales: 1) learning stimulation (the types of toys and learning materials available); 2) language stimulation (parent's encouragement and use of language); 3) physical environment (safety, cleanliness, pleasantness of home and neighborhood); 4) warmth and affection (parent's interaction, physical and verbal affection, encouragement of child); 5) academic stimulation (parent's encouragement of child in learning colors, numbers, etc); 6) modeling (e.g., T.V. is used judiciously); 7) variety in experience (parent takes child on outings, etc); and 8) acceptance (assessing harshness in interactions with and punishment of child). There is also a total score. Subscale and total scores are then compared with norms and percentiles falling within either the lowest fourth, the middle half, or the upper fourth. The table below shows the number of families falling within each of the percentile rankings within each subscale and for the total score.

Table 11. HOME scores for intervention families (N=12)

Subscale	Intervention Sites			South County Sites		
	lowest fourth	middle half	upper fourth	lowest fourth	middle half	upper fourth
Learning Stimulation	0	7	1	0	3	1
Language Stimulation	3	2	3	0	2	2
Physical Environment	3	3	2	0	0	4
Warmth and Affection	2	2	4	1	3	0
Academic Stimulation	4	2	2	2	1	1
Modeling	0	6	2	0	1	3
Variety in Experience	1	7	0	0	2	2
Acceptance	0	3	5	0	1	3
Total Score	2	4	2	0	2	2

These results show that target children come from a range of family environments with areas of strength and areas of weakness. However, only two of the 12 families had overall scores that fell in the lowest quarter percentile. Language stimulation, the quality of the physical environment, and academic stimulation are areas of weakness for some families in the intervention sites, while many families show strength in the areas of warmth and affection, and in acceptance. For the South County sites, none of the families fell into the lowest quarter percentile range, except in the areas of warmth and affection and academic stimulation. Strengths for most of the South County families were shown in the areas of physical environment, modeling, and acceptance.

### 3. Family resources and stress

The Family Resource Scale (Dunst & Leet., 1985) was also filled out by the child's parent. This scale assesses the family's resources in areas such as housing, food, money, clothes, and time to meet the needs of the family on a consistent basis. There are 30 items and parents rate each item on a scale from 1=not at all adequate to 5=almost always adequate. Scores were summed across the 30 items. The range=85 to 133 (M=105.57, SD=20.01) for the intervention site families and 100 to 133 (M=115.75, SD=15.00) for the South County families. These scores were similar to norms provided for families of young children (range=75 to 150, M=116.54, SD=17.76). For this scale, a resource is considered optimum if it scores a 4 or 5. The mean score across the items for the intervention sites was 3.52, and 4.0 for the South County sites. Items that consistently scored lower than 4 in these families were items dealing with time (e.g., time to socialize, time to be by myself, time to get enough rest/sleep, etc.) and items dealing with having extra money (e.g., money for family entertainment, money to save, travel/vacation, etc.). Overall, though for most families, the basic necessities were rated by parents as adequate.

Families were also asked about the stressful life events that have occurred in the family within the past year. This scale lists 19 life events such as divorce, marriage, pregnancy, moving, decrease in income, drug or alcohol problems, beginning a new job, legal problems, and death of a family member or friend. Parents simply check off those that have occurred and then scores are weighted and summed. Total stress scores by families in the intervention sites ranged from 0 to 27 (M=12.13; SD=7.88), and in the South County sites, the total stress scores ranged from 6 to 16 (M= 11.75; SD=5.06). The critical cut-off score for this scale is 17, indicating that most of these families were not experiencing critically high levels of life stress. However, it should be noted that two families in the intervention group and two families in the South County group approached this critical level (scoring a 15 or 16), and one family from the intervention site was experiencing well over this critical level with a score of 27.

#### 4. Parenting skills and parenting stress

To assess parent’s baseline parenting skills the Parenting Scale (Arnold et al 1993) was given. This scale asks parents to indicate strategies they use when their child misbehaves. There are 30 items which give a behavioral stem such as ‘When my child does something I don’t like...’ and offers a 7-point scale anchored by two responses, one a parenting mistake (e.g., I often let it go), and the other, an effective parenting strategy (e.g., I do something about it every time it happens). Mean scores are then calculated for each subscale and the total score. Higher scores indicate more parenting mistakes.

For the purposes of this assessment, the total parenting score and two of the three original subscales were used. These two subscales, laxness and overreactivity, have been shown to be reliable and have been replicated in other studies of the instrument, whereas the third subscale (verbosity) has not. The table below shows the means, and standard deviations of the total score, and the two subscale scores for the intervention site parents, and the South County site parents. For comparison, the means and standard deviations from a clinic sample and a non-clinic sample, as reported in the literature on the development of the scale, are also presented.

Table 12. Parenting discipline scores of target families prior to intervention (N=12)

Parenting Scale	Intervention sites Mean (SD)	South County sites Mean (SD)	Clinic Sample Mean (SD)	Non-clinic Sample Mean (SD)
Laxness	3.0 (1.1)	2.5 (1.1)	2.8 (1.0)	2.4 (.8)
Overreactivity	3.0 (1.2)	2.8 (.49)	3.0 (1.0)	2.4 (.7)
Total Score	3.4 (.50)	2.9 (.57)	3.1 (.7)	2.6 (.6)

This table shows that these parents (particularly intervention site parents) score very similarly to the clinic sample at baseline, and could benefit from learning better parenting strategies.

Parents also filled out the Parenting Stress Index-Short Form (Abidin, 1995.) This 36 item scale has three subscales (Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child) as well as a total score. The Parental Distress subscale assesses stress associated with the parenting role, such as impaired sense of parenting competence, restrictions placed on other life roles, conflict with the child’s other parent, lack of support, etc. The Parent-Child Dysfunctional Interaction subscale assesses the parent’s perception that the child does not meet his/her expectations, and the interactions with the child are not reinforcing to the parent. The Difficult Child subscale assesses behavioral characteristics of the child that make the child either easy or difficult to manage. Scores for each subscale are summed and then compared with normed percentiles. Scores falling above the 85<sup>th</sup> percentile are considered high, and those above the 90<sup>th</sup> percentile are considered clinical. The table below shows the

number of parents falling into the low, average, high, and clinical ranges for each subscale and the total score.

Table 13. Parenting stress scores of target families prior to intervention (N=12)

Parenting Stress Index Subscale	Intervention Sites				South County Sites			
	low	average	high	clinical	low	average	high	clinical
Parenting Distress	2	3	1	2	0	4	0	0
Parent-Child Dysfunctional Interaction	0	6	0	2	0	2	0	2
Difficult Child	0	4	2	2	0	3	0	1
Total Score	0	4	2	2	0	3	0	1

Not surprisingly, there are quite a few parents in the high and clinical ranges, although roughly one half to three quarters of parents, depending on the scale, score in the average or low range.

Taken together, the families of target children come from diverse family backgrounds, and many have very limited incomes. As a group, they show parenting skills that are similar to clinic groups who have young children with behavior problems. Some also show high to clinical levels of parenting stress. However, they also show areas of strength on which to build, as evidenced by some families falling in the upper percentile ranges on the HOME scales.

## 5. Description of target children

Twelve children were initially identified for intervention (8 at the intervention sites and 4 at the South County sites). This included 5 boys and 3 girls at the intervention sites, and 3 boys and one girl at the South County sites. All were identified as having externalizing behavior problems based on the Early Screening Project ratings (Walker, Severson, & Feil, 1995). This measure, completed by the child’s teacher, assesses both externalizing and internalizing behaviors in preschool children and provides norms separately for girls and boys. Subscales include: Critical Events Index (a checklist of 16 serious behaviors), and rating scales for Aggressive Behavior (for externalizing children, 9 items), Social Interaction (for internalizing children, 8 items), Adaptive Behavior (8 items), and Maladaptive Behavior (9 items). Since all children were identified as having externalizing behaviors, the social interaction scale was not assessed on any of the target children identified in this initial round of intervention. The norms provided for this measure include four risk categories: 1) no risk (children’s scores fall below the clinical cut-off); 2) “at risk” (scoring 1 standard deviation above the mean, or at the 84<sup>th</sup> percentile); 3) “high risk” (scoring 1.5 standard deviations above the mean, or at the 93<sup>rd</sup> percentile); and 4) “extreme risk” (scoring 2 standard deviations above the mean or at the 98<sup>th</sup> percentile) for the normative group. The table below shows the number of children falling into each risk category in each site, for each subscale.

Table 14. Behavioral rating scores of target children prior to intervention (N=12)

ESP subscale	Intervention sites				South County sites			
	no risk	at risk	high risk	extreme risk	no risk	at risk	high risk	extreme risk
Critical Events	1	1	1	5	0	0	0	4
Aggressive Behavior	0	0	0	8	0	0	0	4
Adaptive Behavior	1	0	3	4	0	1	0	3
Maladaptive Behavior	0	0	0	8	0	0	0	4

This table shows that most target children at both sites fall within the extreme risk category across the four subscales, and all children score in the extreme risk category in aggressive behavior and maladaptive behavior.

The other baseline assessment completed on all target children was the Developmental Profile II (Alpern, Boll, & Shearer, 2000). The Developmental Profile is a brief developmental screen designed to identify children who may have intellectual or social developmental delays. This instrument assesses development in 5 areas (physical, self-help, social, academic, and communication) and shows a child’s development in relation to age norms. Scores represent

the number of months (+ or -) the child’s developmental age falls relative to chronological age norms. This screen was completed to identify underlying problems that could affect behavior. The table below shows target children’s mean, standard deviation, and range of scores obtained in each area for the intervention and South County sites.

Table 15. Developmental screening scores for target children prior to intervention (N=12)

Developmental Profile Subscale	Intervention sites	South County sites
Physical Development	M= .88 (SD=5.7) range = -7 mos. to 12 mos.	M= -1.0 (SD=11.5) range = -14 mos. to 14 mos.
Self-Help	M= 6.3 (SD=10.5) range = -9 mos. to 20 mos.	M= -12.5 (SD=5.4) range = -18 mos. to -5 mos.
Social Development	M= -10.3 (SD= 9.6) range = -24 mos. to 8 mos.	M= -13.0 (SD=5.1) range = -20 mos. to -8 mos.
Academic Development	M= -6.5 (SD= 5.9) range = -14 mos. to 0 mos.	M= -2.0 (SD= 6.7) range = -9 mos. to 7 mos.
Communication	M= -6.8 (SD= 12.0) range = -29 mos. to 8 mos.	M= -15.0 (SD=10.8) range = -27 mos. to -1 mo.

This table shows that many of the target children at both sites show significant delays across areas (and particularly in the areas of social development and communication). However, there is great variability, with some children scoring well above chronological age norms. These assessments were also used to determine needs for services such as speech therapy, to which children were referred as part of the intervention.

## C. Target Child and Family Outcomes

At follow-up there were six families who completed the intervention in the intervention sites and two families who completed the intervention in the South County sites. Two families in the intervention sites dropped out because they lost their vouchers. Two families in the South County sites were still receiving their interventions due to a later start with those sites, and closing of two of the sites for the summer. Although the families who lost their vouchers were sent questionnaires, they did not complete and return them. The data provided below represents all data that were available at follow up.

### 1. Changes in parenting skills and parenting stress

*Parenting skills.* Complete post-intervention data were obtained for the Parenting Scale from 5 parents in the intervention sites (one parent did not complete enough of the items to obtain a reliable score). Parenting skills showed improvement in the intervention sites across the overreactivity, laxness, and total scale scores. In overreactivity, mean parent scores decreased (showing improvement in parenting skills) from 2.44 to 2.12. In laxness, mean parent scores decreased from 3.08 to 2.16. These differences were not statistically significant. However, mean total scores improved from 3.26 to 2.47, and this was statistically significant ( $t=2.79$ ,  $df=4$ ,  $p=.049$ ).

In the South County sites, mean scores on the two families assessed at follow-up did not show improvements in parenting skills, except for a very slight improvement in laxness. In overreactivity, mean parent scores increased slightly (showing more use of ineffective parenting strategies) from 3.1 to 3.2. In laxness, mean scores improved slightly from 3.3 to 3.2. The mean total scores increased slightly from 3.38 to 3.43. None of these differences were significant, although with such a small sample, this is not surprising. When the two samples (intervention and South County sites) were combined, none of the scales reached significance.

To investigate the effects of treatment intensity, the families were grouped by number of hours of overall intervention services. These ranged from 10.75 hours to 36.5 hours. Half of the group received under 20 hours of service, the other half received 20 or more hours of service. Therefore the group was divided into two groups and changes in their mean total parenting scores were examined. Mean scores for the under 20 hour group changed from 3.0 at baseline to 2.9 at follow-up. Mean scores for the over 20 hours of service group changed from a mean of 3.50 at baseline to 2.6 at follow-up, ( $t=2.98$ ,  $df=3$ ,  $p=.059$ ), suggesting that a greater intensity of service had greater effects. Again, sample sizes are too small to analyze adequately for statistical significance.

*Parenting stress.* In the intervention group, the Parenting Distress subscale score means went up slightly from 24.2 to 24.8. The Parent-Child Dysfunctional Interaction subscale mean stayed the same at 23.0, and the Difficult Child subscale mean went down from 33.33 to 30.75. The total Parenting Stress scale mean also went down from 80.5 to 78.6. None of these changes were statistically significant. In the South County sites, all parenting stress subscale means went up. Parenting Distress increased from a mean of 28.5 to 34.0. Parent-Child Dysfunctional Interaction increased slightly from a mean of 22.5 to 23.0. The Difficult

Child subscale mean increased from 24.0 to 27.0, and the total Parenting Stress score increased from a mean of 75.0 to 84.0.

To examine the effects of treatment intensity, the groups were once again divided into those receiving less than 20 hours of total treatment and those receiving 20 hours or more. Surprisingly, results showed that the low intensity treatment group showed a slight mean decrease in all of the subscales of this measure, whereas the high intensity treatment group showed slight mean increases in all of the subscales. The means for the low intensity group for baseline and follow-up, respectively, were: Parental Distress=28.25, 27.75; Parent-Child Dysfunctional Interaction=22.50, 18.75; Difficult Child=31.00, 27.38; Total score=81.75, 73.87. The means for the high intensity group for baseline and follow-up, respectively, were: Parental Distress=22.25, 26.50; Parent Child Dysfunctional Interaction=23.25, 27.25; Difficult Child=31.00, 32.25; and Total score=76.50, 86.00. It is also interesting to note that the low intensity group had higher mean baseline scores than the high intensity group. These findings at this point are difficult to interpret, but deserve further study when the sample size increases with future waves of data. One explanation is that that CDAs invested more of their time on child functioning issues and the short-term nature and focus of the intervention is overall not powerful enough to see changes in the particular dimensions of parenting stress measured.

## 2. Changes in developmental profile scores

For the intervention sites, there were improvements in the Developmental Profile scores across most of the subscales (with the exception of Physical Development and Self-Help Skills). Baseline to follow-up mean scores showed that Physical Development decreased slightly from .50 months, to .30 months, and Self Help Skills stayed the same at 5 months baseline and follow-up. However, Social Development improved from a mean of -8 months to -1 month; Academic Development improved from a mean of -6 months to -3 months; and Communication Skills improved from a mean of -9 months to -5 months.

For the two children with follow-up data from the South County sites , there was a mean improvement in Physical Development (from a mean of -8.5 months to -1 month), Self-Help Skills (from a mean of -9.5 months to -2 months), and Social Development (from a mean of -15.5 months to -11 months). However, decreases were observed in Academic Development (from a mean of 1.5 months to -4 months) and in Communication Skills (from a mean of -7.5 months to -11 months).

Again, the effects of treatment intensity were examined. The low intensity group (n=3) showed mean improvement in Physical Development (from -6 months to -3 months) and in Self-Help Skills (from -.33 to 4 months), but showed slight mean declines in developmental age in Social Development (from -8 months to -9 months), Academic Development (from -4 months to -7 months), and Communication Skills (from -9 months to -13 months). None of these differences were significant, although the sample size is too small to have adequate power. In the high intensity group (n=5), all subscale means showed some improvement, and one (Social Development  $t = -3.39$ ,  $df = 4$ ,  $p = .028$ ) reached statistical significance. Improvements were shown in Physical Development (from a mean of 1 to 1.6 months), Self-Help (from a mean of 2 to 2.4 months), Social Development (from a mean of -11 months to 0 months), Academic Development (from a mean of -5 to -2 months), and in Communication Skills (from a mean of -8 to -2 months). These results suggest that greater treatment intensity had a positive effect on development, especially social development.

### 3. Changes in ESP scores

For target children in the intervention sites (n=8), there was mean improvement across all of the subscales of the ESP, with statistically significant improvement in both Aggressive Behavior ( $t= 2.65$ ,  $df= 7$ ,  $p= .033$ ) and Maladaptive Behavior ( $t=2.73$ ,  $df= 7$ ,  $p= .029$ ). Means for baseline and follow-up scores, respectively, for each subscale were as follows: Critical Events decreased from  $M=4.1$  to  $M=2.9$ ; Aggressive Behavior decreased from  $M=34.4$ , to  $M= 24.9$ ; Adaptive Behavior increased from  $M=22.1$ , to  $M=25.9$ ; and Maladaptive Behavior decreased from  $M=35.5$ , to  $M=27.4$ .

For the two children in the South County sites, there was also mean improvement across most subscales. Means for baseline and follow-up scores, respectively, were as follows: Critical Events stayed the same at  $M=7$ ; Aggressive Behavior decreased from  $M=38$  to  $M=30$ ; Adaptive Behavior increased from  $M=16.5$  to  $M=20.5$ ; and Maladaptive Behavior decreased from  $M=39.5$  to  $M=33$ .

In terms of treatment intensity, analyses suggest that greater intensity of treatment had greater effects on behavioral improvement, particularly in Maladaptive Behavior, where Repeated Measures Analysis of Variance showed a significant Time by Treatment Intensity interaction effect,  $F(1,8)=5.99$ ,  $p=.04$ . The table below shows the means at baseline and follow-up for the low and high intensity treatment groups.

Table 16. Mean scores and changes in scores on behavioral assessments of target children (N=10)

ESP Subscales	Low Intensity		High Intensity	
	Baseline	Follow-up	Baseline	Follow-up
Critical Events	3.5	3.75	5.5	3.67
Aggressive Behavior	35.25	30.25	35.0	23.0
Adaptive Behavior	20.0	21.25	21.67	27.17
Maladaptive Behavior	33.75	31.75	38.0	26.33

We also had the benefit, for this measure, of having a “control” group to compare to our “treatment” group. Children who were identified as meeting criteria for treatment, but who did not receive treatment (n=19) were compared to our target treatment group (n=10). Results of Repeated Measures Analyses of Variance showed a trend for Critical Events in both groups to decrease over time,  $F(1,27)=3.54$ ,  $p= .071$ , and that the target group had slightly higher rates of Critical Events than the control group  $F(1,27)=3.98$ ,  $p=.056$ , with no significant group by time interaction. For Aggressive Behavior, however, scores decreased in target children but increased in control children, as evidenced by a significant group by time interaction  $F(1,16)= 7.7$ ,  $p<.013$ . Means for the target group baseline to follow-up were 35.1 to 25.9, and for the control group, 28.37 to 30.37. Further, both groups showed slight increases in Adaptive Behavior  $F(1,27)=3.97$ ,  $p= .057$ , although the target group was significantly lower overall,

$F(1,27)=5.8$ ,  $p=.023$ , than the control group. Finally, both groups decreased in Maladaptive Behavior  $F(1,26)=17.66$ ,  $p<.001$ , although the target group was significantly higher overall in maladaptive behavior  $F(1,26)=4.92$ ,  $p=.035$ ; the target group overall mean=32.4, the control group overall mean=25.8. However, while not statistically significant, investigation of the means over time showed that the target group had a greater change in Maladaptive Behavior than the control group (decreasing more than 7 points in the target group, versus 4 points in the control group).

Taken together, these results are encouraging and suggest that the intervention is having positive effects on the target children, and possibly some residual positive effects on the other children in need in the classroom.

#### **4. Parent satisfaction with TFK services and the parent-professional relationship**

Parent satisfaction with TFK services was assessed using a 16-item questionnaire. Twelve of the items asked parents to rate on a 5-point scale (1=strongly agree to 5=strongly disagree), how much they felt TFK services helped their child, for instance, behave better at school and at home, and improve their skills. Other questions asked how much TFK services helped the parent handle the child's behavior, feel more comfortable talking to the teachers, and obtain services for the child and family. Some questions asked whether TFK services took too much time or expected too much from the parents. Two questions asked about the amount of services the child and family received and whether the amount was more than what was needed, about right, or less than what was needed. Finally, two questions asked about overall satisfaction with services using a 5 point scale ranging from 1=very unsatisfied to 5= very satisfied.

Chi square analyses revealed no significant difference in any of the questions based on intensity of services. All parents responded positively (indicating they agreed or strongly agreed), that TFK services helped their child behave better at home and at school, taught them better ways to handle child behaviors, helped them feel more comfortable talking with teachers, and helped make the classroom a better place for all children. All parents also disagreed or disagreed strongly that TFK services took too much time or expected too much from them. Most parents (except for one who responded "unsure") agreed or strongly agreed that TFK services helped improve their child's skills (learning colors, listening, etc.), and helped them get to know the childcare staff and other families better. When asked if TFK services helped them get other services for their child, most responded positively, while three out of the eight parents responded "unsure." When asked if TFK services helped them obtain other services for their family two parents responded positively, two responded "unsure," and three responded that TFK did not help them obtain services (this may have been because other services were not needed). In terms of the two items asking about the amount of services the child and family received, 7 out of 8 reported that the amount was "about right," while one parent said it was "less than what was needed." Finally, in terms of overall satisfaction with TFK services for themselves and their child, one parent responded "neutral," 3 indicated they were "satisfied," and 4 indicated they were "very satisfied."

Parents also filled out a Parent-Provider Relationship Questionnaire, which asked about the parent's view of their relationship and experience with the Child Development Advisor (CDA). Thirteen of the items were rated on a 5-point scale of frequency with the anchors of 1=never, 3=sometimes, and 5=frequently. Two other questions asked parents to describe the parent's personal relationship with the CDA, and their opinion of their CDA's professional skills. The response choices were: excellent, good, fair, or poor.

Analysis of variance showed no difference in a summary score of this measure, based on service intensity. Most parents responded very positively to questions asking about their personal experience with their CDA. For instance, all parents responded "never" to the following items: "I feel I'm being judged by my CDA," "My CDA is critical of me and complains about the things I do," "I feel frustrated working with my CDA," "My CDA doesn't seem interested in what I have to say," and "I feel angry towards my CDA." Further, 3 out of 8

described their relationship as “good” and the other 5 described their relationship as “excellent.” All parents also responded “frequently” to the item “My CDA likes my child.” Most parents (6 out of 8) reported that they frequently enjoyed working with their CDA, and most (7 out of 8) said that it was never difficult to work with the CDA. In terms of feeling close to their CDA, 3 reported they “frequently” felt close, 2 gave this item a “4” (one point lower), 2 parents said “sometimes,” and one parent responded with a “2” or “almost never.”

Other items asked about parent’s view of the CDA’s professional skills. Most parents were also positive in this regard. Three out of 8 described their CDA’s professional skills as “good,” while 5 out of 8 described them as “excellent.” Six out of 7 responded “frequently” to the item “I feel my CDA is a competent professional,” while the other parent rated this item a “2” or almost “never.” One item asked if they agreed with their CDA’s suggestions and recommendations. Here, 4 parents said “frequently,” 2 responded one point lower or ‘mostly’, one said “sometimes,” and one gave it a “2” indicating that they almost “never” agreed with the CDA’s recommendations. Asked if they trusted their CDA, most (5 out of 8) responded “frequently”, two responded one point lower or ‘mostly’, and one parent responded “never.” Finally, in terms of whether they felt their CDA’s skills made a difference in their family’s life, 3 parents said “frequently, two gave on point lower or ‘mostly’, and three said “sometimes.”

Overall then, most parents seemed to develop a positive relationship with their CDA and felt that the TFK services were helpful to their child and their family. Only one parent seemed less satisfied with the CDA relationship and TFK services.

## **D. CDA Professional and Parent Relationship Ratings and Qualitative Observations by CDAs and Center Administrators**

### **1. CDA professional-parent relationship ratings**

Like parents as described above, CDAs were asked to rate their relationship with each parent they worked with. There are 34 items on the scale that ask about the relationship with the mother, the father and the child. Most of the items are on a 5-point scale ranging from “never” to “frequently”. A few items used a 4-point scale ranging from “excellent” to “poor” to rate overall relationships and child improvement.

The scale was filled out for nine families by CDAs. Only two fathers were involved regularly in the intervention, so most of the information provided is relevant to working with the mother or child. CDAs were evenly divided between “sometimes” and “frequently” when reporting how enjoyable it was to work with the child, and the same proportion reported “sometimes” and “frequently” it was enjoyable to work with the mother. Echoing the parent profile, where there seems to have been difficulty between a CDA and one parent from a parent’s point of view, one CDA reported a parent who more frequently seemed to “judge” her professional competence, while two of the families did so “sometimes” and six “never”. None of the CDAs felt any of the mothers “seemed critical of me/complains about the things I do.” On the other hand, the CDAs felt that mother’s followed their recommendations/suggestions at rather low rates, with six mother’s rated at “sometimes” or less frequently, while only three were rated at the “frequently” end of the spectrum.

When rating how difficult the child is to work with, CDAs reported that five of the children were “sometimes” difficult to work with, while one was “frequently” difficult to work with, and three were rated in between “sometimes” and “frequently.” Similarly, CDAs reported five children were “sometimes frustrating” to work with, and two more frequently than sometimes frustrating, while only two were “never” or “rarely frustrating.” However, CDAs reported “never” feeling angry with six of the children, and only “rarely” or “sometimes” for the additional three children. They also reported feeling “sometimes” or more frequently “close to the child” for seven of the nine children, and only “rarely” for the other two.

Five of the mothers were reported to “never” or “rarely” be hard to work with, while four were “sometimes” or more frequently hard to work with. Similarly, CDAs reported that six of the mothers were “sometimes” or more frequently frustrating, while three there “never” or “rarely” so. CDAs also reported that five of the mothers “sometimes” “did not seem interested in what they had to say”, while three mothers were rated as “never” reacting this way. Nevertheless, CDAs said they “never” felt angry toward seven of the mothers and only “sometimes” for two of them. They also reported feeling “close” to the mothers “sometimes” or more often, with eight of the nine mothers. Overall, most CDAs rated mothers as trusting the CDAs, as least sometimes, but CDAs couldn’t rate two of the mothers on this item.

CDAs rated their feelings of competence to work with the child and mother as “frequent” or mostly frequent in more than half the group, but only “sometimes” for four

mothers and children. Nevertheless, CDAs agreed or strongly agreed they were able to help the all the children. Echoing the challenges of working with some of the families, however, the CDAs rated their overall relationship with the families as “excellent” for only two, “good” for four, and “fair” for three. Similarly their overall rating of the relationship with the child showed only one with an “excellent” relationship, five with a “good” relationship, and three with a “fair” relationship. These ratings thus reveal that the children and families were challenging for the CDAs to work with. It is important to see that despite these challenges, the CDAs and the overall intervention created much positive behavior change for individual children and families.

## 2. CDA interviews

A set of 10 interview questions about the effectiveness of TFK implementation, views about outcomes, and overall impressions of the project was developed for both CDAs and Center administrators. An additional 9 questions about the CDA role were administered to the two Worcester and one South County CDAs. The CDA interviews took about one hour each, and were conducted in May and June 2003. In terms of views about the goals of the project, one CDA mentioned referrals for families, while another mentioned systematic change in the childcare centers. All agreed a goal was to provide short-term services to children, parents and teachers around challenging behaviors. Two CDAs mentioned that the study aspect was an important goal to document the need for future services, but this was not mentioned by the other CDA. One CDA also mentioned the importance of modeling and education to ensure sustainability of the gains after the project ends.

In terms of whether or not the CDAs felt these goals were appropriate, the CDA that viewed systems change as a goal, felt that this goal could not be achieved with investing only 20 hours a week in a center. Two other CDAs felt the short-term nature of the intervention was difficult. One mentioned that there should be a 2 ½ to 3 month start up time, and the other mentioned that the short intervention time did not allow for parent and teacher “buy-in.” She felt five months was a more realistic time frame to work with families. The South County CDA felt that 20 hours a week was also not enough time to meet program goals when servicing geographically separate centers.

As far as introducing the program to the centers, the CDAs focused on different issues. The process of meeting with staff and having discussions about their needs was mentioned by one CDA. In this center the CDA felt the staff were desperate and were “hoping for a miracle”, and therefore felt the expectations for what she could accomplish were too high. At this center the CDA also did not feel the working conditions were optimal. She didn’t have an adequate space to meet with teachers or parents, and often had to have conversations “in the hall.” At another intervention site the CDA reported that she had a lot of support from the administration and adequate space to meet with families and teachers. She, however, noted that the floater teacher wasn’t very effective and that this role needs to be better defined. In addition, she felt it was hard to engage the teachers who did not have an identified problem child who was receiving individual services. Both of these CDAs suggested that the overall scope of paperwork and demands on the teachers (e.g. getting the center-wide parent surveys finished, filling out the ESP forms, etc.), wasn’t clear at the beginning and this provided some difficulties as teachers and staff began to realize the scope of their needed involvement. One CDA also mentioned that it took too long to get everything in place, delaying the time available to provide services for individual children.

Another CDA said that the support for the project was not adequate, that the center lacked space to work with individual children, that there was a lack of basic equipment to make photocopies and phones to make calls to parents. This necessitated extra work at home for this CDA. This CDA also felt that there was not enough time and space to meet with teachers and that, as mentioned by the other two CDAs, there was not enough communication with teachers about the project. This CDA also stated that she wished she had had more training for herself

and that she was often unable to have her questions about the project answered. It was also stressful because she was unable to follow through on delivering services to some children because of some of the centers closing for the summer.

In terms of major accomplishments from the viewpoint of the CDAs, one noted that they helped target children's families be more involved in the classroom and more empowered, and that the teachers felt more like partners with the parents, and better able to talk with parents about behavioral issues. In addition, this CDA felt that general consultation to teachers about non-targeted children was important and helpful. Another CDA reported a similar theme about teacher changes, i.e. that teachers began to think more broadly about what is going on with the children, rather than labeling them as "bad." Also, relationships were built with administration, teachers and parents that emphasized intervening with children early so that things don't get out of hand. She also emphasized that individual children were identified who were otherwise "falling through the cracks", and were provided individual speech and language therapy and other services they would not have received without TFK. One CDA mentioned the relationship she was able to develop with the SPED department in one of the school districts that enabled her to obtain summer and public school services for some of the children with whom she was working.

When asked to describe what has worked well about TFK, two CDAs emphasized how useful the in-depth child assessments were to obtaining a comprehensive look at the children, especially the Developmental Profile. Another emphasized the team meetings between parents and teachers that reviewed children's progress. She felt this emphasized the importance of the TFK work to parents and kept them engaged. Finally, a third CDA mentioned the improvement in teachers' understanding and awareness of mental health issues in the children, recognizing for instance, that one child's behavior was reflecting grief at the loss of a loved one, rather than just "acting out."

In terms of what didn't work well, and recommendations for improvements, two CDAs mentioned parent's schedules. Parents often were difficult to meet with, and it meant working outside of allocated hours. One recommended a contract specifying times to meet be set up with parents when they enroll in services. All CDAs felt that time was an issue. The CDA from South County in particular felt that travel distance between sites was too much for one part time person to manage. All felt that the CDA role should be full time on site because the overall work load and documentation load was too high. In addition, the two CDAs in centers with floater teachers felt that this role should also be full time. Both of these CDAs mentioned that the floater teacher was not helpful to the project. The floater role wasn't clear and the person was used by the center as needed, rather than specifically linking to the TFK project and the need to cover classrooms during TFK-related teacher tasks. One CDA went on to say the floater teacher needs to be trained and supervised better. One CDA said the problems with the floater teacher also limited the amount of teacher modeling that could be done on site. Finally, one CDA felt that there was not enough communication between center directors and teachers, that there was a lot of tension and frustration, and that teachers didn't feel heard. As a result a lot of time was spent venting about other issues at the beginning of the project. One CDA recommended that teachers be more involved from the beginning (not just center directors), and that each CDA be assigned to only one site.

As far as other issues, the CDAs felt both the parents and staff needed a better understanding of the project and the time commitment involved in order to make a realistic commitment. One CDA felt her site was chaotic and this impeded the teachers from being able to implement recommendations and plans (for example there were no substitutes available and if someone called in sick, preschool teachers were sent to toddler classrooms, or even to help in the kitchen in one instance). In two sites, the CDAs also felt that the amount of questionnaires the parents were asked to fill out was too burdensome. One mentioned that some parents had literacy issues, and that there needed to be a better understanding of cultural issues and greater emphasis on building trust. One felt a qualitative interviews by the evaluation staff of parents would be helpful, but did acknowledge this would require hiring interpreters in some cases. Further, the teacher training series, as already noted, was hampered at one site by being conducted at nap time, interfering with developing a quality teaching and learning environment for the staff. One CDA emphasized the importance of this teacher training, stating “Teachers need this—they really don’t have training.”

In terms of the CDA role itself, positive aspects mentioned were seeing the changes in the children, and seeing the teachers change how they feel about the children, along with parental appreciation. One CDA said, “I worked with a child who was really on his way out the door when I started...by the end he was doing really well with decreased aggression and increased prosocial behavior. The mother had a positive experience and became an integral part of the center and the teachers felt really good too.” Personal accomplishments mentioned included developing strong relationships with parents, “giving people some hope that things can get better”, educating parents about mental health issues, providing resources, and empowering parents to be advocates. One stated, “In general it’s putting a positive face on mental health services for children. Parents are more open to asking questions, asking for parenting workshops.” One CDA also mentioned the positive aspects of working with and influencing non-targeted kids.

Accomplishments with teachers mentioned by the CDAs included being a listening post and helping problem solve in the classrooms. However, two CDAs, for slightly different reasons, mentioned that working with teachers and administrators was challenging. In one case the CDA felt that confidentiality was an issue and that she couldn’t talk candidly about situations between teachers and children with administration and lead teachers, without the lead teachers using the information inappropriately in supervision with teachers and assistant teachers. In another case the situation was poor dynamics between teachers, and among teachers and administrative staff where the CDA was used as a communication vehicle for different factions. They both recommend that site structural and communication issues need to be directly addressed in order for the model to be most successful. However, one CDA felt she was able to be more successful in addressing center dynamics.

As far as challenges with the families, one CDA felt it was hard to lose children, mid-course, as well as to work with families when the two parents would not agree on an approach. The other challenges were the complexity of the project. Two CDAs mentioned not being prepared for the time management issues, balancing the research agenda with the clinical service (e.g., the service delivery coding, or the evaluation/research tasks). One felt there

wasn't enough time to do trainings for parents. One felt she was prepared for the clinical work, but not the management of all the paperwork and evaluation/research aspects. Two felt that now that systems are in place, it will be easier for new CDAs. They feel more training should be done on all the paper work and reporting systems. One CDA also felt that while she was trained clinically, she did not have enough behavioral training.

In terms of other ideas, the CDAs felt that both sites and families needed a clearer idea of what the duties are for the CDA and what is realistic to accomplish. One questioned how far it was appropriate to bring up site-based structural and other issues that seemed to be making a more difficult work environment for teachers and create barriers to assisting children. Another CDA brought up that she would like more time to create positive classroom activities. A third mentioned that it would be nice to have a central resource area where parents could come and connect with each other, watch videos on parenting, a physical space where books and resources were available—a welcoming place for parents to go. She said, “Parents feel isolated, living in poverty, without transportation.”

In sum, all three CDAs felt they were able to help families, children, and teachers in significant ways, but at the same time outlined how challenging the role was. In two cases, they identified the floater teacher as a problem for the model, as the role was not well identified and did not end up supporting the intervention activities. In all cases, although with different specific issues, the CDAs also identified organizational barriers and issues at the centers that, as outside professionals working many hours in centers, they could detect as creating less than optimal work and classroom environments. Like the use of trained NAEYC observers to do baseline classroom observations, the role of the CDAs in identifying organizational development issues for centers was unanticipated. Based on the interviews of the CDAs, the intervention model seems to need some retooling to figure out how to incorporate these other organizational issues more formally as part of site-based consultation, if the clinical consultation is to be maximally successful.

### 3. Center administrator and teacher interviews

A total of seven center administrators and teachers were interviewed either in person or by telephone at the five intervention sites. They were asked a standard set of 10 questions that were also asked of the CDAs, including how they defined the project, what worked well, what did not work well, and what was accomplished. There was overall agreement across the respondents that the goal was to provide services to children and families. One teacher mentioned helping with the transition to school, and two others mentioned getting families more involved with the childcare center. Only three mentioned specifically that staff training was a component; the others focused more on services to children and families.

In terms of the goals being realistic and necessary, there was uniform agreement that the project had picked appropriate goals. However, two staff felt that there wasn't enough time to work with individual children and families. One stated that the goal of family involvement was ambitious given the location of the center and its clientele. When asked how well the preparation and support to implement the program went, one site reported they felt there was no introduction or adequate preparation. However, all the others described meetings, information sessions, and in some cases, general classroom observations and feedback to teachers. One specifically commented on the level of support that was given by the TFK Project Director. The South County sites felt the project was introduced too late in the school year to be maximally effective. Worcester site respondents felt the project developed over time and they had some trial and error; one site administrator particularly commented they had to learn how to use the floater teacher, and another commented that they would have liked more start up time to prepare. Most did not think significant changes in introducing the project were necessary, but one Worcester site teacher felt it would have been good to try to engage parents better.

When describing accomplishments and what has worked well about the TFK intervention, most respondents pointed to the staff training as most important, including the informal interactions with the CDAs, and the formal training sessions delivered. One teacher said, "It helped in looking at how I deal with the kids more. It sparked my interest in getting more training." Three respondents mentioned that the individual work with children and families was positive, although one respondent who felt it was valuable for teachers/staff did not think much had been accomplished with children. One respondent felt a particular intervention in the classroom by a CDA was not a useful one. In contrast, another lead teacher felt the project "changed the lives" of three children, including transforming one child who was about to be terminated: "It's amazing to see where he was before and where he is now." A Worcester site administrator commented that her site did not have to have a parent conference related to a child's behavior all year, and that in all her years of childcare experience, she has never seen that happen. She felt that although there were still behavior problems in the classroom, the teachers seemed better able to deal with them.

One program administrator felt the floater teacher was a big help, so that teachers had time to participate in the interventions. A lead teacher described the CDA as an extra set of hands and help in the classrooms that greatly assisted in overall classroom management. Another lead teacher felt the home visits were very important, since it allowed the staff to see

what the families are dealing with. This was echoed by a teacher at another site who said, “Going on the home visit was good. It was enlightening. I live very differently in my home. I can see now where some of the kids are coming from.” Finally, one teacher mentioned that the development of a behavioral plan jointly among the parents, teachers, and CDA meant that everyone was “on the same page” with the child, and that this was very positive. Another program administrator stated that the support from the Project Director and CDA were the most helpful.

In terms of what did not work well, half mentioned that the floater teacher and coverage for the classrooms did not work well at either of the Worcester sites. One administrator felt scheduling the floater teacher and training was difficult. In addition, another half felt there wasn’t enough time for CDAs at the centers, or that three months was not enough time to work with individual children and families. In one case, lack of CDA time was related to health problems of the CDA, which resulted in more absences than with other CDAs. One teacher also commented that the children in need, but not yet receiving services, were “left with no plan”. Finally, another program administrator commented that there wasn’t the necessary flexibility, particularly in the CDA’s time, stating, “The outside world doesn’t understand the real dynamics of a childcare center. You have to be flexible, parents don’t show up for meetings, we know that.”

When asked what they would do differently, half said they would have the CDA spend more time on site, and one said more time with individual families was needed. One teacher mentioned they should obtain the feedback from the quiz on child behavior so they know where to improve, even though she resented receiving the quiz in the first place. One teacher felt the weekly meeting with the CDA was very positive and that while they wished the CDA was on site more, it did feel like enough, combined with her accessibility via telephone for questions. Another respondent mentioned that staff needed more training on what, realistically, they could expect parents to implement. One respondent felt the classroom observations and feedback session were not well planned or organized, and the particular observer for her classroom arrived for her meeting without notes or preparation, therefore making the effort not very useful for the center. A program administrator also mentioned that when the classroom observations were completed by two different observers, teachers received conflicting opinions of what should be done to improve the classroom. This administrator also said that there were too many meetings required of teachers, and that scheduling was difficult. Finally, one said that more resources needed to be allocated for staff training and family activities.

In terms of the key elements of the intervention that are essential to disseminate the model to other sites, a range of suggestions were given. One said that they needed to know the CDA schedule and when to expect them was important, while another added that the accessibility to the CDA when she isn’t on site was very important. An administrator suggested that the CDA have more extensive childcare experience. One mentioned that the floater teacher needed to be better trained, and another said that the classroom observation component needed to be done better. Another suggested that the intervention be six months long, rather than three, and that there be more efforts directed at parents (home visits, family

counseling). Finally, one teacher felt more children should have access to individual play therapy to maximize their gains.

Overall, then, teachers and administrators were pleased with the support and help for both teachers and families that they gained from the TFK pilot thus far. Most felt that both staff and families benefited from the intervention, however, there were many individualized perspectives on the project. The two major themes that arose in terms of improving the intervention had to do with the floater teacher, and some of the specific roles and time availability of the CDAs. Based on these respondents, however, there was strong endorsement for the TFK model. Other than working out a few 'kinks', there was no strong sentiment that there needed to be major changes in the model.

## **VII. Preliminary Conclusions and Recommendations**

The first year of implementing the Together for Kids pilot project has substantiated that behavioral issues represent a critical problem for a significant number of young children and their families in childcare centers. Data collected from parents and teachers in these centers, and from some of the families of children determined to be at risk, has revealed a number of areas for childcare center improvement, and at the same time, has documented that a center-consultation and individual intervention model can provide important benefits for children, families and day care center staff.

## A. Center-wide Issues

Center-wide assessments were first conducted to determine issues and needs across all children, families and staff. Overall, parents were pleased with their childcare programs, but a substantial proportion of parents identified some areas where childcare staff could communicate better about their child's development and about center policies and procedures that affect their child. In addition, 14% of parents felt staff were not sensitive to them, and 18.5% felt staff are not accepting or positive toward them. These findings show that periodic surveys of families are important, especially when extra effort is put in so that an adequate response rate is obtained, and not only the most cooperative and well organized families respond. They also reveal areas where childcare centers can improve in terms of parent relations. Some staff interviewed also felt that more activities should be directed to engaging families. Parents that participated in a child discipline session at one center were overwhelmingly positive, indicating that that this approach to preventive activities with parents should be pursued more often.

In contrast to what was expected, staff at the childcare centers did not overall report large job dissatisfaction or burn out. Most overwhelmingly indicated they gain a high sense of personal accomplishment in their work, although staff at some sites reported more emotional exhaustion. This assessment is helpful to begin to address staff issues that may interfere with optimal work with children, and should be conducted once a year to identify if there are staffing issues that need attention.

The staff in the 7 sites involved in the study have, on average, seven years working in the field, and turnover does not seem to be a major problem at this time. However, approximately 1/3 of the staff do not have education beyond the high school diploma or equivalency. Most feel they have adequate knowledge about early childhood behavior problems, but an evaluation of an in-service training conducted by TFK CDAs at the two Worcester intervention sites revealed that there was still room for more training. Interviews of administrators and teachers at intervention sites noted that support for the staff, and the staff training activities, were important components of the TFK intervention.

Finally, the implementation of classroom observations using the standard NAEYC validation tool was felt to be an important diagnostic tool for use in addressing overall classroom issues that can contribute to behavior problems. The trained observers made very astute observations about classroom spaces, curriculum, staff skills, and the distribution of more challenging children across classrooms. Common comments were that children's behaviors appeared to be more immature for their ages, that the curriculum expectations needed to be adjusted for younger developmental ages (versus for the chronological age), and that teachers needed help with 'teachable' moments interacting with children to assist children to internalize behavioral controls, as opposed to just following external rules. These observations need to be specifically integrated into an overall childcare center plan to prevent and ameliorate children's challenging behaviors. However, the use of observations was not determined to be precise enough to be a good measurement of intervention change, and it is recommended these be maintained only as an intervention planning tool.

## **B. Assessment of Child Behavior Problems**

Childcare staff and administrators described at baseline between 15% and 71% of children requiring mental health/behavioral intervention. In the intervention sites where a standardized internalizing and externalizing set of behavioral assessments was administered by teachers by carefully evaluating all the children in their classrooms, a rate of 22.6% of all enrolled children were identified as scoring in a risk range that required intervention. The majority of these exhibited externalizing behavior problems, however, a number of children with serious internalizing behaviors were also identified.

In depth assessment of 12 children targeted for services revealed that, in addition to being ranked at ‘extreme risk’ on four standardized behavioral scales, many had significant developmental delays. These delays were most common on social development, academic development, and communication development, and ranged from 6-10 months. Some of these children had already been identified, by teachers or prior service providers, as experiencing delays, however, some had never before been assessed for developmental issues. While it is not possible to suggest that the delays are causing children’s behavioral difficulties, or the converse, that behavioral difficulties cause the delays, this finding suggests that an important part of the TFK intervention is to perform a comprehensive child assessment so that a complete and comprehensive set of information is available to assist the child and family.

### **C. Family Assessment**

Family assessments of the initial 12 children targeted for services revealed that the biggest area of deficit for most of the families was knowing how to appropriately discipline their preschool age child. While some of the families had more significant stressors in terms of income, life stress, or inadequate home environments, none reported inadequate basic needs. The overall profile of targeted families found only one or two with extreme environmental deficiencies that might require extensive social service assistance beyond the TFK project. This finding suggests that for this group of children, not much time and resources in intervention strategies needed to be focused on collateral services for families. Rather, the most pressing need appeared to be specific training and help around behavioral management of their children. However, it would be important to continue assessing overall family needs in children who are targeted in order to develop the most effective, individualized intervention plan for each family.

## **D. Outcomes**

Individual assessments of children and families who received intervention services revealed that significant improvements in several areas could be measured, despite the small number of children and families for which we had complete data. Further, the level of improvement was correlated with the level of TFK services, demonstrating a dose-response relationship suggesting the intervention is powerful and predictive. Finally, in contrast to children falling within risk cutoffs who did not receive services due to time constraints, children who received services improved their behavior substantially, while those awaiting services were rated by teachers as having even more difficulties with behavior in a follow-up assessment. This interaction effect was statistically significant and provides a controlled comparison for the effects of the intervention.

In addition to decreasing both aggressive and maladaptive behaviors, target children also made substantial improvements in developmental skills, ranging from 3 to 7 months in social, academic, and communication areas. At the same time that the teachers and CDAs evaluated improvement, parents also rated their children as less difficult. The combination of three independent observers involved with the child finding measurable improvement in different dimensions addressed by the intervention, suggests that the individual intervention aspects of the model are robust and are a substantial outcome, not just a placebo effect. Finally, parents showed a statistically significant increase in their parent discipline skills. As with the child outcomes, the increase in skills was correlated with the amount of service received.

## **E. Conclusion**

Overall, then the TFK model in its first year has demonstrated that it can effectively address child behavior problems in childcare centers. However, interviews with teachers, administrators, and the CDAs revealed that it was not all smooth sailing in getting the program launched and operating. In particular, it is less clear what the overall center impacts have been, although the center interview respondents were quite positive about the program and its impact on staff and families.

Several common themes emerge for further program refinements. These include careful structuring and planning of training, and support time for the CDA so that the limited time available is used to maximal effectiveness. Along these lines, it may be necessary to increase CDA time, at least during the first phases of the project, in order to have the time and flexibility to meet with parents, conduct center-wide parent meetings, conduct home visits, while still being in the center for individual work with children, modeling, and teacher training. This would also allow more children to be served initially, rather than having a waiting list where children could potentially age-out before receiving needed services. In addition, a better definition of the role and skills of the floater teacher needs to be worked out so this resource provides more contribution to support the overall objectives of the project. Finally, more activities need to be directed to the larger group of children and families who are identified as at risk, but who must wait for individual intervention.

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